

CHEMICAL MARKETS

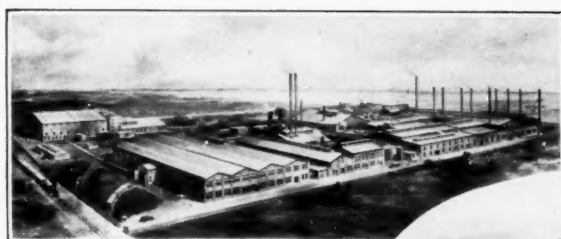
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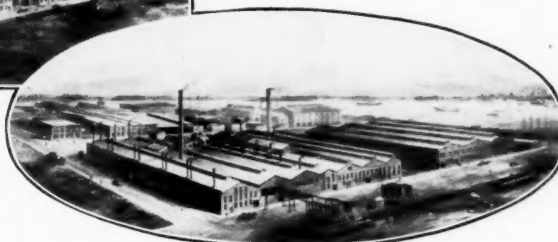
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OCTOBER 13, 1927



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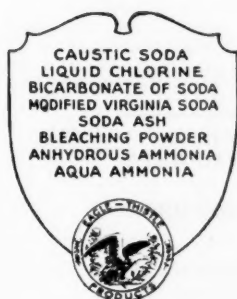
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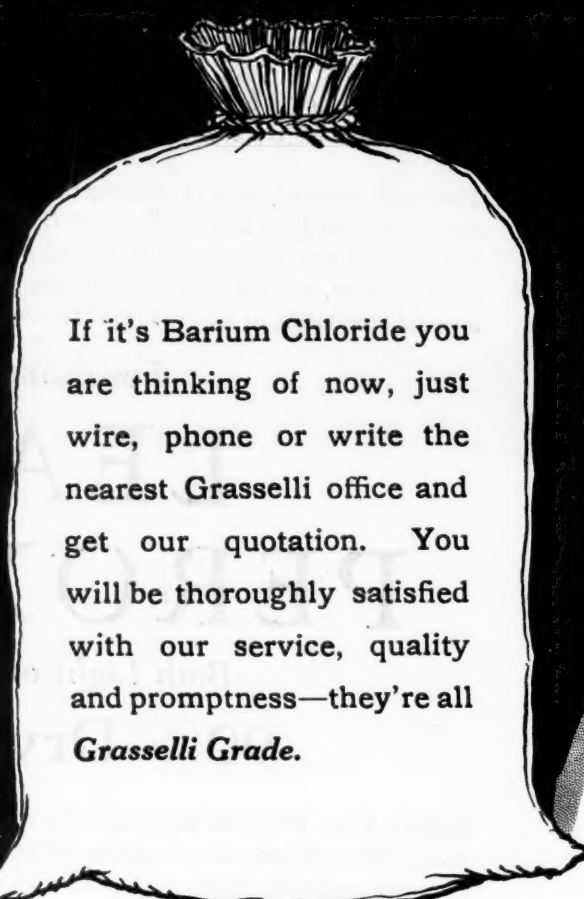
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ALCOHOL THROUGH THE AGES , , NUMBER I



ALCOHOL—THE ORIGIN OF THE NAME

A long, long time ago, centuries before Queen Scheherezade related her Arabian Night tales of "Aladdin," and "The Forty Thieves," al-koh'l, a finely ground powder, was used by Arabian women to darken their eyebrows and lashes.

The resemblance between the methods used to obtain these fine powders and those used for distilling wine probably suggested the name "alcohol," which Baume defines as "spirits of wine rectified to the utmost degree."

/ / / /

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CHEMICAL MARKETS

VOL. XXI

NEW YORK, OCTOBER 13, 1927

No. 15

The Tariff Again.

THAT ever-grinding rumor-mill that is set up in season and out at Washington has several times during the past two weeks caught the ear of the chemical industry. In the midst of much talk of the national candidates for 1928 and of tax reduction during the coming session of Congress, the tariff bobs up every now and then.

THE tariff controversy with France has to an unprecedented degree brought to the attention of American industry the international, political aspect of customs duties. Looking ahead, the chemical industrialist need not be gifted with second sight to see that the growth of chemical cartels abroad, the fulfillment of international chemical production and selling agreements, combined with the rapidly increasing importance of all sorts of chemical raw materials and chemical processes in many new phases of industrial economics, forecasts an increasing emphasis upon the chemical sections of national tariffs. This is a high powered economic weapon which will surely be used. To the domestic political angles of our tariff problems we can confidently expect the injection of international affairs.

AN even more immediate reminder of the tariff is the new report of the Dye Census. This valuable document is prepared fundamentally for tariff information and among its close packed facts is material for plenty of tariff argument.

The report bears evidence of distinguished advances in our dye industry. Domestic colors control the bulk of the market although the increasing importations of some of the finer, less common shades continues. A most encouraging technical advance is made in the domestic development of new dyes, products hitherto unknown to commercial chemistry. This is the bright side of the picture. The obverse reveals increased foreign production of dyestuffs, notably in Germany, Italy, and Switzerland, and the continuous strengthening of the German position in the big bulk markets of the Orient. The report confirms the common evidence that the Germans are making strenuous, successful efforts to regain this trade; that they are consolidating their gains; that most significant of all, they are employing the numerous chemical and commercial resources of the I. G., in ways which, thanks to the Sherman Law, are impossible for their American competitors.

THIS dye trade situation is an oft-told story. Repetition has made it almost a trite commonplace and stripped it of all the keen partisan interest which it aroused ten years ago. But the rapid expansion of the I. G. into other chemical fields and the permeation of their ideals and methods throughout other European industrial circles gives this well-worn problem of the American dye manufacturer a most significant meaning for other branches of the American chemical industry.

THE CHEMICAL EXPOSITION

The Eleventh Chemical Exposition is history. All in attendance—exhibitors and visitors alike—may look back on it as time well spent. New and interesting displays were an education to everyone.

There were, however, two impressions gathered which are deserving of comment. The first of these is the attempt made in some quarters to put the Exposition back on an annual basis, beginning with next year. While some favorable comment was heard on this proposed move, a large majority are convinced that an Exposition every year would be as useless as uninteresting. The prime reason for the Exposition is to educate the industry with the showing of new developments since the last Exposition. Even with the rapid strides made in the chemical and allied industries, admittedly the most rapidly developing in the country, an annual show would have little to offer of interest and the committee of exhibitors acted wisely in turning down the suggested revision in the schedule.

The second impression gathered was that the manufacturing chemical industry as a whole is the loser in refusing to exhibit at the Exposition. The present day Expositions might better be termed "The Exposition of Chemical Machinery". This aloofness on the part of a large portion of the industry is difficult to understand. Many of those who have exhibited for years past report a real benefit derived from the contacts and the friendships formed in addition to a fair share of directly resulting business. Certain it is that the lists of visitors contain the names of many men, whom salesmen of these same skeptical companies can never hope to see in their offices or plants, but who are willing and eager to talk business at the Exposition. In addition, there are new contacts to be made and it is a sad state of affairs that prevail, when at an Exposition sponsored by an industry of our size, but a mere handful of manufacturers are represented.

No rebuff to the Berthelot Memorial Committee was intended by the Council of the American Chemical Society meeting last month in Detroit, in its refusal to sanction participation of the Society in the Memorial drive. In declining, the Council stressed that its individual members may do as they see fit in the matter, explaining that the Society would not participate in any drive for a memorial to chemistry which has its inception in what is looked on as a national political move.

In an address before the Fifth Annual Chemical Banquet, Dr. L. V. Redman estimated that if a

chemical manufacturing concern hopes to avoid the present day pitfalls of stagnancy, between twenty five and thirty per cent of the annual income must be utilized toward the furthering of research work. Coming from one so well versed in the benefits derived from research, this assertion is worthy of careful consideration by executives in the chemical and process industries.

No one seems capable of predicting the future trend of the glycerin market. On the feature pages of this issue is an article on present conditions and the circumstances surrounding them. In passing it is interesting to note that producers, refiners and dealers alike, have modestly side stepped the issue of expressing an opinion as to the price movement. On the surface, this appears an admission of probable weakness, and well it might be, in view of the present state of the market.

The recent release of the Dye Census of 1926 by the Tariff Commission, shows an increase of two per cent in production over 1925. While this advance is not so spectacular as in the pioneer days of the industry in this country, it is reassuring to learn that the long dormant textile industries are stirring towards a revival of something closer to normal output.

[Ten Years Ago]

(From Drug & Chemical Markets, October 10, 1917)

S. Suzuki & Co., Ltd., Tokio, one of Japan's largest chemical companies, has opened an office in New York for the purpose of handling direct the New York business of their factories.

Union Carbide & Carbon Corp. has been incorporated as a merger of Union Carbide Co., National Carbide Co., Inc., Prest-O-Lite Co., Inc., and the Linde Air Products Co.

A contract for 12,000,000 pounds of picric acid to Aetna Explosives Co., and one for 1,000,000 pounds to Butterworth-Judson Corp., at a joint value of \$7,830,000, has been awarded by the United States Government.

Colgate & Co. Jersey City, has purchased twenty acres at Port Newark Terminal as a site for future expansion.

Federal Dyestuffs & Chemical Corp. went into the hands of John W. Herbert and Frank H. Platt, temporary receivers, appointed by Judge Hough of the Federal District Court.

Charles V. Bacon, well known New York oil chemist, has been appointed chief of the Oil Division, U. S. Bureau of Mines.

National Aniline & Chemical Co. is reported to have closed a \$500,000 order with the Japanese government for aniline dyes.

Phenol is now in strong demand, spot stock being quoted at 41c, drums extra, and 43½c, drums included.

Glycerin's Future

The Present Weak Position of Glycerin is Traceable to Foreign Competition, Failure of the Anti-Freeze Business Last Winter and Competition From Other Products in the Dynamite and Anti-Freeze Fields

"THE patient is ill, but will recover" is the apt term used by a refiner of glycerin in describing conditions in the glycerin market of the country at the present time. This characterization about describes the prevailing opinion gathered by a representative of CHEMICAL MARKETS while interviewing producers, refiners and dealers last week.

However, the glycerin position is so fraught with potentialities and possesses so many interesting angles, that the subject can not be shunted aside by a mere statement that the market will recover.

There is no doubt that the current market for all grades from crude to chemically pure is weak. On this point all factors are in agreement, but there is some variance of opinion as to the cause of the weakness and just how far reaching the depression extends.

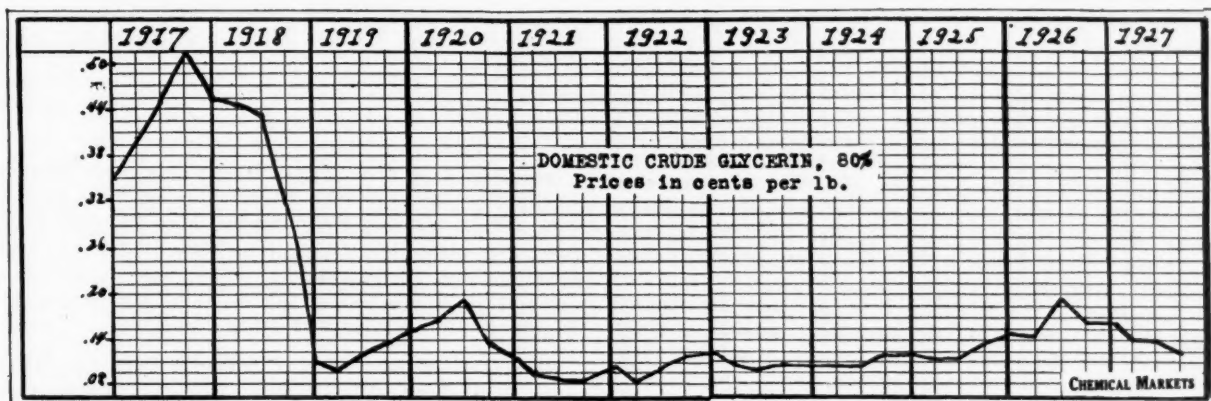
The prime reason for the softness of the domestic market can be attributed to foreign competition. The annual American consumption of glycerin is estimated at something over one hundred million pounds, probably one hundred and ten million pounds. During the War the production of domestic crude was greatly accelerated, so much so as to cover ninety-five per cent of the commercial and military requirements, resulting in a falling off in imports to about one tenth of the ordinary quota.

At the end of the War it was believed that a continuation of American production on a wartime scale would effectively shut out foreign competition. The fallacy of this opinion is most ably shown in the accompanying table of glycerin imports from abroad since 1906. The falling off in imports from 1915 to 1923, 1920 excepted, is accounted for by the War. The sudden jump in both refined and crude in 1920 is due to the fact that large quantities which were contracted for by the Allied governments, particularly

Italy, never left this country, but was resold here and classed as imported because of foreign ownership at the time of reentry. Since 1923 imports again tended toward normalcy, until 1926, when receipts more than doubled for the three year period. In fact, last years imports were exceeded in volume only by 1907, 1909 and 1910. Figures for the first six months of this year indicate that 1927 will be fully up to 1926 in the volume of glycerin imported.

Price is of course the prime factor in determining which of the two—domestic or imported—hold sway, and at the moment domestic producers see fit to undersell foreign competition with the result that imports have fallen off during the past two months. How long this condition will last is hard to say, for it is reported from one quarter in Germany, that that country's requirements have been taken care of for the season with some surplus remaining, and that producers there look to this country as the best possible market for this surplus. Conversely, glycerin is at best a by-product, controlled by tremendously wealthy interests here, and it seems unlikely that they would hoard stocks of crude glycerin rather than meet foreign competition. It is common knowledge that at this writing there are considerably more carloads of crude glycerin in the Metropolitan district than producers care to have, if they hope to get the market back on a firm basis before the turn of the year. As concerns the dynamite market, the powder makers, who take a large share of the annual production in the form of dynamite glycerin, are reported to be buying up to normal taking advantage of the weak market.

Producers and refiners alike are looking toward a good season in the anti-freeze business to help them over the present trying period. Contracts already written for glycerin in this field will assure a sale equal in volume to that of last year. This however does not offer much consola-



Since the close of the War, domestic crude glycerin has been below current levels on several occasions.

tion, as the sale of all anti-freeze preparations last year was a dismal failure and the optimistic attitude of last Fall is partially responsible for the present weak condition of the market. It was well into the Spring of this year before a large bulk of the material produced for anti-freeze purposes was disposed of through other channels. The Glycerin Producers' Association is making vigorous efforts to educate the public on the use of glycerin as an anti-freeze and is at present running full page advertisements in a magazine with a national coverage with this end in view. The fact that alcohol manufacturers will make no concerted effort to sell alcohol for anti-freeze consumption this Winter should assist the glycerin group to some extent, but on the other hand it is stated in some quarters that ethylene-glycol will partially take the place of alcohol as active competition for glycerin. Ethylene glycol is admittedly possessed of qualities which make it desirable for use as an anti-freeze, and it is learned from reliable sources that an effort has been made by the manufacturer to secure an organization with national retail distribution of gasoline and oil to handle the sale of it during the coming Winter. It appears that the glycerin factors are treat-

Imports of glycerin by years

Year	Pounds	Year	Pounds
1906	32,193,000	1916	7,026,000
1907	43,680,000	1917	2,964,000
1908	28,114,000	1918	1,445,000
1909	41,536,000	1919	3,966,000
1910	39,862,000	1920	22,413,025
1911	36,280,000	1921	2,806,758
1912	29,574,000	1922	3,657,068
1913	38,243,000	1923	15,134,452
1914	24,787,000	1924	15,927,698
1915	15,616,000	1925	21,308,260
1926			38,433,388

ing ethylene glycol rather lightly as competition, based on the argument that the price is much higher than glycerin and also that ethylene glycol is a manufactured product with definite costs, while glycerin is a by-product, with a price which can be changed as situations arise. While these arguments have their good points, it is a fact that in the dynamite market, where ethylene glycol is also seeking a foothold, the latter will most certainly act as a price stabilizer for glycerin and we are not likely to again see any runaway markets while the dynamite manufacturers can hold this club over the glycerin producers. Just to what extent the powder makers have become interested in ethylene glycol is not known, but there has unquestionably been some sale in that field and in some instances it is being used in combination with glycerin with marked success. For every pound of ethylene glycol used in either field, a like quantity of glycerin must find a market in another direction.

A third factor, which if true, will have a depressing effect on glycerin, is the oft repeated story of manufacturing glycerin from molasses mash at the Eastern Alcohol Corporation plant of Du Pont and National Distillers Corporation. Glycerin producers look on the possibilities of competition from this source a bit skeptically. Should the venture succeed commercially the producers will have occasion to worry, for this molasses glycerin is being manufactured in the plant of probably their largest customer.

Summing up, the producers have to combat the menace of foreign competition and competing products. These weapons are the fact that glycerin is a by-product their best forte—and the members of the Association are possessed of sufficient wealth to weather any price storm which can be anticipated at present. As concerns the immediate future no one looks to a strengthening of the market for some time to come unless an unprecedented anti-freeze demand sends the market soaring.

Who's Who in the Chemical Industry

Osborne Bezanson, wks. mgr., Merrimac Chem. Co., Woburn, Mass. Born: Woburn, Mass., Nov. 10, 1888. Educat.: Woburn High School, Northeastern Univ. Mar.: Edith P. Buel, Woburn, Sept. 1912. Child.: four. Bus.: Merrimac Chem. Co. since leaving school. Served as dept. supt., asst. to pres., wks. mgr. Mem.: Amer. Inst. Chem. Eng., Amer. Chem. Soc., Rotary Club. Hobbies: golf.

Edward P. Bosson, owner, Bosson & Lane, Atlantic, Mass. Born: Chelsea, Mass., Aug. 30, 1864. Educat.: Chelsea public schools. Mar.: Annie L. Marshall, Lynn, Mass., Oct. 20, 1891. Child.: two daughters. Bus.: Traveling salesman in Dyestuffs until 1895 when firm of Bosson & Lane was established; dir., Newton Trust Co., trustee, Newton Centre Saving Bank. Public Record: Alderman, City of Newton, Mass., 1905-09; Mass. State Guard, 1920. Mem.: Boston, Newton, and Quincy Chambers of Commerce; Associated Ind. of Mass.; Boston City, Home Market, Drysalers, Charles River Country, Laconia Country Clubs; Boston Credit Men's Assn.

Morgan H. Grace, pres., Phosphate Export Assn., New York. Born: Wellington, N. Z., 1880. Educat.: St. Patrick's Col., Columbia Univ. Mar.: Ruth Eden, Apr. 27, 1904. Child.: five sons. Bus.: pres., Coe Mortimer Co., 1901-12; pres., Phosphate Export Assn., 1919 to date. Public Record: Capt. & Major, Air Service, 1917-19; pres., Village of Great Neck, 1923-26. Mem.: Downtown Assn., Columbia Univ. Club, Piping Rock Club. Hobbies: tennis, boating.

Earl Wiley Hunnell, supt. Tallow, Grease & Fertilizer Depts., Pittsburgh Prov. & Pack. Co., Pittsburgh. Born: Pittsburgh, Educat.: Pittsburgh Academy. Mar.: Adina L. Nelson, Pittsburgh, Feb. 9, 1920. Bus.: Pittsburgh Prov. & Pack. Co., 15 years. Public Record: 223rd Aero Service Squadron, U. S. A. Mem.: Amer. Oil Chemists Soc. Hobbies: outdoor sports, motor-ing.

Adolph Lewisohn, senior member, Adolph Lewisohn & Sons, New York. Born: May 27, 1849; educat.: private schools of Hamburg, Germany. Bus.: Pres. and dir., General Development Co., Miami Copper Co., Tennessee Copper & Chem. Corp., South American Gold & Platinum Co. Mem.: National Arts, Economic, Criterion, Lotos, City, Engineers, Metropolitan Opera Club. Hobbies: Paintings, music, rare books, horticulture.

James L. Sapp, pres., J. L. Sapp; also pres. Prigden Supply Co., Broxton, Ga. Born: Baxley, Ga., June 1, 1876. Mar.: Rebecca Bell, Baxley, May 28, 1900. Children: two daughters, son. Bus.: operated at Baxley, Broxton, and Watcrosse, Ga., producing naval stores and mgr. pure gum spirits and rosin; in present bus. for 20 years. Mem.: Elks and other clubs.

Edward L. Winder, v. p., C. Ober & Sons Co., Baltimore, Md. Born: Wye House, Talbot Co., Md., June 4, 1858. Mar.: Mary D. Parker, Howard Co., Md., Oct. 15, 1884. Children: 2 daughters. Bus.: C. Ober & Sons Co., 1886 to date. Mem.: Merchants Club, Soc. of Cincinnati Sons of the Rev.

Selecting the Proper Lacquer Plasticizers

PERHAPS the most important detail in the manufacture of nitrocellulose and cellulose ester varnishes and lacquers is the correct selection of the solvent and plasticizer or softening agent. The results that are obtained in the use of the lacquer, depends to a large extent on the correct choice of these ingredients. The composition of the lacquer must be such that it will yield a dry film with the required physical properties and that it can be used in producing these results. The nature of the cellulose ester plays an important role in determining the properties of the lacquer, but we cannot deal with this subject in this article.

There are not so many esters that can be chosen between and furthermore it has been fairly well established just what effects can be expected from the use of one or another of these esters. On the other hand there are a great many solvents softening and plasticizing agents on the market to-day, and more are being added. These substances command different prices, possess different properties, and give various results. The real task in the manufacture of lacquers is in choosing the proper solvent and plasticizer, on giving best results at lowest cost.

Action of Solvent

When a nitrocellulose lacquer evaporates, it leaves a film containing some of the original solvent, which will gradually evaporate, although it may take months before film is entirely free of the solvent, even then traces may still be found. The presence of the solvent allows the lacquer film to remain soft but as the solvent evaporates the film becomes harder and it becomes more difficult for the remainder to evaporate. Hence a state of equilibrium is really never reached. The time that it takes for all of the solvent to evaporate and leave the film brittle depends on various factors, such as the volatility of the solvent, the temperature, and the thickness of the film. The only factor which is under the control of the lacquer maker is the volatility of the solvent.

It has been found advantageous to use such a solvent that it will leave the lacquer film with the greatest rapidity and thus leave it in a brittle state, and in order to avoid the film attaining such a condition it is common to use plasticizing agents. It is a misnomer to call these substances softening or plasticizing agents in that they lead to the belief that a soft film is desired, for the film must be highly elastic and non-shrinking and at that the same it must possess a hard surface which is scratched with difficulty only. Furthermore the film must adhere firmly to the under-surface, a property which is intimately connected with its elasticity. One important condition that must be remembered in advocating and selecting plasticizers for use in making lacquers is that these substances must be solvents of the cellulose esters.

We shall first concern ourselves with the plasticizers or

In an effort to find the ideal solvent and plasticizer much work has been done. There is given in this article a comprehensive list of the developments to date in all parts of the world.

softening agents. One of the most important of these substances is diacetin. This substance has a boiling point of 260 degrees C. It is used in making cellulose acetate lacquers. It has a tendency to absorb water from the atmosphere and it is somewhat volatile, in fact too much so for lacquers which have to possess a high degree of stability. It may also generate acid which is also a disadvantageous property of the substance. Nevertheless it is a good plasticizer.

Triacetin, which is closely related to diacetin, is a substance of almost the same boiling point, namely, 258 degrees C, but it is a better plasticizer than diacetin. It is less volatile, is not

hygroscopic, and does not become acid.

Various butyl esters have been found to be good plasticizers, such as butyl phthalate, butyl stearate and butyl tartrate. Butyl alcohol has also been used for this purpose. Butyl stearate has a boiling point of 360 degrees C. It is found that a lacquer containing this substance, particularly when used in conjunction with amyl phthalate, which is also a plasticizer, will give a film of high polish. Butyl tartrate, also a valuable plasticizer, is commonly used in conjunction with triphenyl phosphate. It has a boiling point of 292 degrees C, possessing a high degree of plasticity. Butyl phthalate, having a boiling point of 312 degrees C, is one of the most popular plasticizers. Its properties and effect are similar to those of amyl phthalate.

Amyl and Ethyl Esters

The amyl esters are also used as plasticizers. Thus amyl phthalate, with a boiling point of 340 degrees C, is one of the best. It also has a good solvent action on nitrocellulose and resins which may be used in making the lacquers. The products manufactured with its aid, leave behind a film which is resistance to weather influences, perfectly elastic and stable. Thus it is used in the proportion of ten to one hundred per cent of the weight of the nitrocellulose in such lacquers, from three to five per cent by weight in the case of esters resin products and as much as fifteen per cent in making hard resin products. The film obtained with the aid of the phthalate plasticizer possesses more strength than the triphenyl phosphate film.

Amyl oxalate, with a boiling temperature of 265 degrees C, has been recommended as a plasticizer, but it is not used to any extent as it does not appear to have any advantages over less costly products. The same disadvantage is incurred in the use of amyl tartrate, although this substance has been proven to be a very high grade plasticizer, giving hard films which resist well weather influences. The cost of the product is however too high.

Certain ethyl esters are also good plasticizers. Thus ethyl oxalate, with a boiling point of 185 degrees C, is a good plasticizer with solvent properties. Nevertheless it

must not be used where the requirements of plasticity is at a maximum. This is also true of ethyl phthalate which is claimed to be inferior in plasticizing properties to amyl phthalate.

A plasticizing agent, which is used exclusively in manufacturing cellulose acetate varnishes, is resorcinol diacetate. This substance possesses two disadvantageous properties, one being that it will cause the lacquer film to become brown after a time, and also it is high priced.

Tricresyl phosphate has long been known for its plasticizing properties. It has a boiling temperature of 430 degrees C. It can be used in large proportions in making the cellulose ester varnish and lacquer. It has the effect of reducing the inflammability of the product and when it is used in conjunction with ester resins, a lacquer is obtained which yields a film of great hardness and high polish, perfect elasticity and great resistance to weather influences. Triphenyl phosphate, another plasticizer, with a boiling point of 410 degrees C, is very similar in its action to tricresyl phosphate.

Benzyl alcohol is another important softening agent with solvent properties. It has a boiling point of 200 degrees C. and may be used with advantage as the medium in grinding pigments for lacquer enamels. Benzyl alcohol is really a softening agent and should be used in conjunction with a low boiling solvent and a high boiling plasticizer.

Cellulose Acetate Plasticizers

Quite a few plasticizers are only suitable for making cellulose acetate lacquers. A number of these appear on the market under various trade marked names. Thus dibenzyl ether, known as Erganol O, is a useful acetate plasticizer. It is a colorless liquid, strongly refractive and insoluble in water. It has a boiling point of 298 to 300 degrees C, a flame temperature of 135 degrees C and a density of 1.035 at 15 degrees C.

Cresyltoluene sulphonate is another plasticizer which will also gelatinize nitrocellulose. Its commercial name is Mittel KP. It is brownish colored liquid, oily, possessing a slight odor and easily soluble in various organic solvents. Its flame temperature is 184 degrees C and its density 1.207 at 15 degrees C.

Ethyltoluene sulphonate is an excellent solvent and plasticizer for nitrocellulose as well as cellulose acetate. Its trade name is Mittel AEP. It is a solid and comes in coarse crystals with a melting point of 31 to 32 degrees C. The substance has a neutral reaction, an agreeable odor and is easily soluble in various organic solvents. However it is quite a poisonous substance and must be handled with a great deal of care.

Within recent times interesting softening agents have been created by the esterification of glycol ethers with orthophthalic acid. One of these products is known as Softener PM and is the methyl glycol ester of orthophthalic acid. It is an oily liquid, almost colorless and odorless. Its reaction is neutral and it exerts a very good solvent action on nitro-cellulose and cellulose acetate. Its boiling point is 230 degrees C, flame temperature 187 degrees C, specific gravity at 15 degrees C. 1.1708, molecular weight 282 and ester number 397.

Another product is Softener A, which is the ethyl glycol ester of orthophthalic acid. It is a solid and in the form of colorless, easily-fusible crystals or neutral reaction and almost colorless. It forms colorless oily liquid in the molten condition which can be mixed with any of the common organic solvents in desirable proportions. The product will gelatinize cellulose acetate as well as nitrocellulose. Its boiling point is 233 to 235 degrees C, melting point 33 degrees C, flame temperature 1.1229, molecular weight 310 and ester number 361.

Two colorless, crystalline substances with a flowery

(Continued on page 532)

[New Incorporations]

Sun Chemical Co., Oakland, Cal., \$50,000; H. P. Karl, Erna Larsen.
Franklin Lacquer and Chemical Corp., New York City, \$10,000.
J. J. Traub, 29 Broadway, New York.
Excelsior Chemical Co., Buffalo, N. Y., chemists, \$25,000. M. Lipsitz, Buffalo.
Chase Varnish Co., Long Island City, \$5,000. \$40,000. Remsen & Parsons, 60 Wall St., New York City.
Havre Products, Chemicals, Queens County, 200 shares common stock. H. E. Goldschmidt, 105 W. 47th St., New York City.
Standard Fertilizer Co., Williamston, N. C., \$50,000, fertilizers.
Douglas Chemical Co., Waycross, Ga., \$20,000, insecticides. H. Vickers, Jr., R. C. Cobb, Mrs. H. Vickers, Jr.
Florida Mineral Products Co., Ft. Myers, Fla. Lee Hyde, Richard L. Heverle, R. A. Henderson.
Hitchens Products Corp., Wilmington, Del., metal polish, \$10,000.
Corporation Trust Co. of America, Wilmington.
Mountain Oil Corp., Plattsburg, N. Y., \$50,000, dyes, paints.
Feinberg & Jerry, Plattsburg.
Thomas Cotton Co., Cleveland, Miss., \$100,000. Cottonseed oil null. N. P. House, Fred Matthews, H. L. Weinstein.
Jacmar Products Corp., Brooklyn, N. Y., \$10,000, paints, enamels.
Lewis, Marks & Kantor, 50 Court st., Brooklyn.
Ladle Ring Corp. of America, Buffalo, N. Y., 1,000 shares common stock, chemicals, ores. W. McK Taylor, Buffalo.
Century Chemical Co., New York City, 100 shares common stock, disinfectants. C. E. Murphy, 32 Broadway, New York.
Gilette Herzog Chemical Corp., Grand Rapids, Mich., \$50,000.
Colonial Charter Co., Wilmington, Del.
Charleston Manufacturing Co., Detroit, Mich., \$100,000, chemicals.
American Guaranty and Trust Co., Wilmington, Del.
Biochemical Research Laboratories. New York, \$10,000. B. Indig, 299 Broadway, New York City.
Ferran Laboratories, New York, \$250,000, chemicals. M. Travieso, 27 William st., New York City.
Zup Chemical Co., Morristown, N. J., 5,000 shares common stock, W. E. Burke, Morristown.
Walter Morgan Co., paints and varnishes, authorized capital \$50,000, Wilmington, Del.
Superior Chemical Products Co., Washington, \$200,000, motor fuel, medical and chemical products; Colonial Charter Co., Wilmington, Del.
Phoenix Oil and Transport Co., \$1,000,000, oil, gas, sulfur; Corporation Trust Co. of America, Wilmington, Del.
Acme Laboratories, New York, paints, drugs, \$10,000. J. Parker, 150 Broadway, New York City.
Dayco, Buffalo, N. Y., dyes, paints, \$100,000. C. B. Moulthrop, Buffalo.
Louisiana Lignite Co., Wilmington, Del., Minerals, 5,000 shares no par stock. Corporation Trust Co. of America, Wilmington.
Hannon Tire and Rubber Co., Ltd. Toronto, 10,000 shares of no par value. Ernest C. Bogart, Ross Kennedy and Edith M. Bogart.
Harding Carpets Ltd., Brantford, Ont., \$1,000,000 and 20,000 shares of no par value; textiles; Hugh J. McLaughlin, Roland. F. May, William W. McLaughlin.
Savoy Trading Co., Ltd., Ottawa, Ont. \$1,000; textiles. Earnest G. Gowing, Clarence C. Baker, John B. Mulvey.
Transalpine Co., Ltd., Ottawa, Ont. \$1,000; textiles. Earnest G. Gowing, Clarence C. Baker, John B. Mulvey.
Ritz-Carlton Perfume Corp., New York City, \$50,000 in preferred shares of common. B. Austin, 302 Broadway, New York.
L'Amé, toilet articles, New York, \$100,000 in preferred stock, and 1,000 shares common. C. Rush, 141 Broadway, New York City.
Mee Dee Products, toilet preparations, New York, 200 shares common stock, O. H. Droeg, 405 Lexington Ave., New York City.
Acme Laboratories, New York, \$10,000, drugs and paints. J. Parker, 150 Broadway, New York City.
Perfumes, Ltd., Montreal, Quebec, Canada, \$20,000, perfumes, lotions, chemicals.
Scholler Brothers, Ltd., St. Catherines Ont., \$50,000 to manufacture soap. James G. Schiller, Cecil S. Kennedy, Aileen Farmer.
Anwood Oil Co., Ltd., Rosetown, Saskatchewan, Canada, 500,000 shares no par to manufacture oil products. James A. Woodward, Thorold Anderson, Chester A. Lamborn.
S. F. Lawrason and Co., Ltd., London, Ontario, Canada, 1,500 shares, no par. To manufacture soap. Albert E. Wells, Theodore C. Margaret, Carrie E. Baker.
A. S. Herrmann, Ltd., Montreal, Quebec, Canada, \$10,000. To manufacture textiles. John B. Mulvey, Clarence C. Baker, John A. Currie.
Kipps Products, Ltd., Windsor, Ontario, Canada, 5,000 shares no par, to manufacture chemicals. James L. Braid, Stanley L. Springsteen, Harvey L. Barnes.
T. L. Dwyer & Co., have incorporated under the laws of Delaware, capitalization \$100,000, for rayon converting, dyeing and winding. The company will be represented for corporation purposes by Franklin L. Mettler, Wilmington, Del.
E. H. Rayner Ltd. Montreal, Que. \$100,000 and 1,000 shares no par value, dyes, and dyestuffs. Elijah H. Rayner, Rudolph C. Williams, and Charles Helen.
Montreal Coated Papers Ltd. Montreal, Que. \$50,000, paper. John L. Bishop, Claude S. Richardson, and Alexander G. Yeoman.
Chemical Products Corp., Nyack, N. Y. C. L. Jordan, 149 B'way. Manhattan, 50,000.
Rudy Health Corp., chemical preparation, A. L. Fiorillo, 165 B'way, New York, 20,000.
Dutchess County Humus Corp. Fishkill fertilizers, V. D. Stearns, Beacon, N. Y. \$7,500 pfd. 150 sh. common.
Bayway Industrial Chemical Co., Elizabeth, N. J. Abe J. David, 2500 shares common.

(Continued on page 546)

New Developments at the Chemical Exposition

IT is estimated that over 75,000 persons attended the Eleventh Exposition of Chemical Industries, held in Grand Central Palace, New York, during the week of September 26. This increase of about 7,000 over the figures of the previous year is a fitting tribute to the exhibitiveness and attractiveness of their exhibits. These displays ranged from skinless sausages to involved chemical and machine processes, but, whether motivated by scientific interest of merely curiosity, those who attended came to see something new. Anticipating this, many of the exhibitors featured recent developments, resulting in a real exposition of the advance of the Chemical industry in two years.

A general consensus placed the booth of Commercial Solvents Corp. high in the list of exhibitors for the good taste and attractiveness which was apparent in its lay out. Attention was focused upon a large colored diagram illustrating the relationship and derivatives of their chief products—*butanol*, *methanol* and *acetone*. An educational motion-picture display of methods of their manufacture, their use as solvents in lacquers and the application and fast drying properties of lacquer attracted considerable interest.

Among the myriad displays of the Bakelite Co., the monophone, which has been accepted as standard equipment by the American Telephone & Telegraph Co., was

Chemistry has made great progress in two years. We summarize here many of the new developments shown at the recent Exposition, which brought to light some interesting advancements.

of principal interest. It was stated that Bakelite has an exclusive contract for this type of telephone.

The booths of Erinroid Co. of America, Karolith Corp. and American Machine & Foundry Co. were viewed with much interest. All of these firms, revealed the accomplishments of a comparatively new industry, the manufacture of plastics from casein. Abalon pearl was the feature of Erinroid Co's booth. It

is a casein plastic with the hue and general appearance of pearl and is being introduced to the pearl button manufacturing field. This was only one of the varied developments of this line, others include, poker chips, paper cutters, umbrella handles, knife and door handles, toilet articles.

The chronological procedure for distilling wood products was shown by Cleveland-Cliffs Iron Co. A tree, depicting both the derivation, manufacture and ultimate consuming use of wood derivatives was one of the clever features of the exposition.

The exhibit of American Chemical Society attracted many visitors by showing dry ice, its efficiency and economy, together with a simple display of the action of carbon monoxide its chief component. New developments in acid resisting chromium metal and the lacquer solvent field shared interest with a showing of the practical usage of skinless sausages.

A new development in glass-lined tanks was shown by



Guests at The Chemical Industries Banquet, Hotel Roosevelt, New York, September 28.

Alsop Engineering Co., New York. Formerly, tanks were merely lined with glass, which being under high tension, broke very easily. The tanks on display were completely covered with glass thus, it is claimed, equalizing the tension and reducing breakage. This company also displayed the largest portable mixer made, 5 h.p., and a new filter which reverses the old process, filtering from the center to the outside, thus giving double filtering area.

In addition to various U.S.P. chemicals and pharmaceuticals of their manufacture, Sterling Products Co., Easton, Pa., gave an interesting description of the process of making real color pictures of the crystals of various chemicals. It is claimed by this company that, so far as it knows, such pictures have never been made or attempted before, all previous reproductions having been photographed and then colored by hand.

The advantages of their new sulfuric acid concentrators made of fused silica over the old cascade system was emphasized by the Sidio Co. of America. It is claimed for their method that it is more economical because of the larger surface heated and that it makes possible the recovery of electrolyte making residue.

A new roulette comparator, was prominently displayed by LaMotte Chemical Products Co. This is an improvement on former models in the sense that test tubes, when placed in a revolving device, may be turned at will with one hand. It is also a material assistance in making comparisons between standards and samples being tested.

Probably the most extensive displays at the exposition was shown by U. S. Department of Agriculture. The display covered in detail the work and aid rendered by the Department and attracted a great deal of attention by their feature offering, a campaign against dust explosions. An animated picture, illustrating the complete destruction of a plant by dust explosion and urging care in preventing them, was impressive.

Darco Sales Corp. was featuring the use of "Darco" decolorizing carbon in the treatment of fruit juices which for any reason have become discolored without loss of flavor. Samples were shown before and after treatment with Darco with the latter sample practically water white and ready for canning.

Two open faced tables in which phthalic anhydride was packed formed a striking background for the display of the Selden Company's latest outlets for this product. These displays were slabs of bakelite and "clyptal" a synthetic insulating resin made by General Electric Co.

Eastman Kodak Co., offered a complete line of photographic chemicals as well as a representative display of their entire line of some 2300 chemicals. The relation of chemicals to the photographic industry was shown from the early stages of production to the final step, which was in the nature of a miniature motion picture show which was viewed with interest.

The presentation of a complete wood distillation plant, in miniature, showing the inner workings of crushers, stills, acid chambers and the entire procedure in the production of wood chemicals, was the feature of the display of Ford Motor Co. Through the utilization of shavings from wood parts of motor-cars this company manufactures methyl alcohol and its various by-products on a large scale.

The Matheson Co. featured a glass tank containing a bunch of bananas which were being ripened overnight by the use of ethylene. Although this process was developed over a year ago in the laboratories of the University of Minnesota, its use on a commercial scale is just being successfully introduced.

In exhibiting the many uses of corn, Iowa State Uni-

versity featured the utilization of corn stalks as a substitute for cork with a mixture of linseed oil, for making linoleum.

Much interest was attracted by the recently perfected amyl chloride of Sharples Solvents Corp., which this company was exhibiting for the first time in company with pentasol and pentacetate.

Lightness and strength, without corrosion was claimed by the Aluminum Co. of America, New Kensington, Pa., for its new "Alclad", a strong aluminum alloy coated with aluminum, which is being introduced into the seaplane field. It has the advantages of being absolutely rust proof as well as very light and serviceable.

Bachmeier & Co., Inc., New York, had a colorful display consisting of various materials which had been dyed with the aid of their new level dyeing and penetrating compound, "Baco Penet".

The industrial application of activated carbons, such as "Nuchar", especially in the refining of oils, fats and greases, was emphasized by the display of the Industrial Chemical Co.

The varied uses of alcohol were emphasized by the exhibition of finished products shown at the booth of Kentucky Alcohol Corp. which ranged from incense and soaps to illustrations of the efficiency of alcohol when used to prevent water freezing in automobile radiators.

An animated, electrically lighted, colored display of the various processes involved in extracting sulfur from its beds and transforming it into the finished product formed the background for Texas Gulf Sulphur Co's display.

Kuttroff-Pickhardt & Co., presented an attractive grouping of German chemicals. Synthetic methanol, synthetic nitrogen, plastols, tamsols, ethylene glycol and butyric acid derivatives.

A very attractive booth set off the display of Mathieson Alkali Works, featuring a line of heavy alkalis, including caustic soda, chlorine, soda ash, and bleaching powder as well as their "Commonwealth" brand of condiments, vanillin and coumarin.

The foregoing description does not of course include the many manufacturers of chemical equipment who form a very important part of each Exposition. Such firms as Corning Glass Works, International Nickel Co., Buffalo Foundry and Machine Co., General Electric Co., Bethlehem Steel Co. and the Dorr Co. displayed their standard lines and also the booths of the Southern railroads showing the natural resources of the country covered by their lines were both attractive and instructive.

[The Industry's Bookshelf]

STANDARDS AND TESTS FOR REAGENT AND C. P. CHEMICALS—By Benjamin L. Murry. Cloth bound, 560 pages. Published by D. Van Nostrand Co., New York.

Many of our chemists are familiar with Mr. Murray and the first edition of this book and have accepted it as an indispensable guide in testing and insuring the purity of chemicals. Recognizing the expansion of chemical importance since his first issue, the author has not only made changes toward simplified and more accurate testing and also added processes for testing the new reagent chemicals but also has augmented his previous efforts by including the field of C. P. chemicals. Full descriptions of the physical properties of chemicals, action of light and air precautions to be observed in storing, and physical constants of chemicals, are given. As an instance, we choose at random, sodium hydroxide from sodium and find 18 detailed methods of testing its purity. This book is not only an able aid to the chemist but also serves the manufacturer with standards for chemicals that he can produce economically on a commercial scale.

Chemistry's Business Gauges

An Accurate Knowledge of the Industry's Producing and Consuming Capacities is the Great Need of the Day, said Edwin E. Judd, Editor "Industrial Digest" in an Address to the Students Course at the Recent Chemical Exposition.

AS I strolled about among the exhibits here the other night, I was particularly impressed by the many instruments shown for the measurement and recording of temperatures and pressures. It occurred to me that a very close parallel might be drawn between the use of these gauges in the production department and the use of the various indices of business conditions by your executive and sales departments.

These pieces of equipment have been evolved to meet your needs for precise information as to what is going on inside your various vats and retorts at all times. In the early days the chemist worked pretty much by rule of thumb aided by the highly cultivated sense of touch, smell or sight obtained through long practice. There are still processes in which such rule of thumb methods prevail, but you have made tremendous strides in obtaining exactitude in your processes through your ability to regulate temperatures and pressures to a nicety. If this thermometer shows a reading that is a little too high, or that gauge drops a little too low, you are given warning that some particular action is necessary.

Time was, and not so very many years ago, when sales and production policies rested chiefly upon the personal observations and opinions of the proprietor. If his judgment was good, or he was lucky in his hunches, the enterprise prospered.

We spoke of him as a keen-minded business man and perhaps elevated him to the rank of captain of industry. Of course, what often seemed like good luck or uncanny foresight simply represented the result of a lot of real hard work in gathering facts, plus a sound sense of logic which permitted the drawing of correct deductions from those facts.

With the expansion of industry and the broadening out of markets, it became impossible for any one man to compass sufficient territory by his personal observations. If he wanted a foundation of full knowledge of the facts pertaining to his particular industry and his markets, he had to rely somewhat upon the observations of his representatives.

The progress along this line during the past decade and a half has been particularly rapid. Partly because of the stimulus given to production by the world war, and the keen struggle for business since then which has made the maximum efficiency imperative. Partly because of the severe lesson taught the present generation of business men during the slump of 1920-21. Partly, too, because of the wonderful support and encouragement given to commercial reporting by the Department of Commerce under the direction of Secretary Hoover.

We have today at our command reports on commodity movements that were scarcely dreamed of as recently as the years just before the world war. We know more about actual consumption requirements and production capacities

than ever before in our history. In a few industries reports have been perfected to such a degree that it is now possible to tell, within a reasonable margin of error, the normal consumption requirements of this country, the current rate of consumption, the stocks on hand, and the rate of production. Such industries are in position to keep their outputs in line with actual requirements, neither breaking prices through over-production nor business through inability to supply merchandise that is needed.

In other industries the reports are less complete, but still sufficient to be of real assistance, while in others we have still a long way to go. I am sorry to say that a good many divisions of the chemical industry fall within the latter category. There is room for a great deal of work to be done in the chemical industries before the elements of chance and guesswork are reduced to their proper minimum.

Not only have we made remarkable progress in getting at the facts about commodity movements, but we are moving forward in the interpretation of such data. Just as the chemists in the research laboratories are constantly testing new combinations and searching for underlying principles, so are the statisticians and economists assaying this mass of economic data. Many of the relationships between different commodity movements are as complicated as any formulas. The state of the monsoon in India may seem far removed from production program of an American dyestuff company. And yet the connection may be very direct and vital. A favorable monsoon means good crops, a heavy Indian demand for cotton goods, dyes wherewith to color the same, and there you are.

The working out of many of these relationships is a task for specialists. But the results of their work can be of direct and tangible value to you as working members in the business of chemical production. And make no mistake about it. Just as the business world has come to a very keen appreciation of the necessity for watching new developments in the chemical field, lest it wake up to find a new synthetic product walking off with a market that seemed as safe as gold in a Federal Reserve vault, so must the chemical industry keep abreast with the progress made in the science of business administration.

Rather I should say, the art of business planning. Some day we may have a real science of business, but we are still in the experimental stage, grouping toward that goal. We have not yet reached the point where we can set up a certain formula and say that because of this factor and this factor and this factor, such and such a development is bound to follow. We may never reach that stage, because there are too many variables in the equation. But we can say that because of this group of known factors, such a result is probable. Then, if we take cognizance of the known variables and their possible effects, we have a pretty sound basis upon which to build any production or sales program.

There are certain major factors that the business analyst

wants to know about any given industry or commodity. They are consumption, production, stocks and price. Given any two of the first three over a fairly long period and we can calculate the third, just as you can complete the triangle given two sides and an angle, or two angles and a side. Price plays in and out through all these calculations, stimulating or retarding production or consumption, as the case may be.

Just as we establish certain basic points of desired temperatures and pressures in chemical processes, so the business analyst attempts to set up some sort of normal against which to make his measurements. We try to find, for example, what is the normal consumption of any given commodity in this country, as a basis for calculating production requirements. In doing this it is necessary to make allowance for the growth in the population. For that reason, we endeavor to reduce consumption figures to rates per capita, even when dealing with commodities which do not enter directly into consumption by the individual. In the final analysis, all commodities are made for direct or indirect consumption by the mass of the people, and the demand therefor is likely to expand as population increases. Thanks to the work of the census bureau and the actuaries, we have very accurate factors of population growth on which to base these calculations.

In making long-range prognostications as to demand, such as are required in planning plant expansion for years to come, we are chiefly concerned with these factors of average per capita consumption, the increasing rate of such consumption, if any, due to increased buying power, and the probable growth in population. We can only hope to strike the average. In 1932, demand may be somewhat above average, because of good crops and other factors making for general prosperity, or it may be below the average, because of a temporary depression.

Having established the probable consumption for any given future period, we have the basis on which to figure production and sales programs. We want to produce enough to meet the demand, and at the same time avoid overproduction. We want sufficient reserve stocks to take care of any sudden expansion in demand, and sufficient extra production capacity to take care of a reasonable excess over normal requirements. But we do not want any more money tied up in idle plant than is absolutely necessary.

Knowing the rate of growth in total demand for a certain product and the share therein to be reasonably expected by an individual company, the management is in position to plan production and sales intelligently, whether it be for a long period ahead or for the immediate future. In a number of companies, including at least one big chemical producer, probable demand schedules are worked out this way.

A long-time forecast is made, based on the known average demand and the probable increase therein, and the expected share of the company in that demand. This is used as a guide for the making of longtime contracts for materials, purchases of property, expansion of plant, and other parts of the program that require time to carry out.

Another forecast is made, commonly on an annual basis, of needs for the current period. This takes into account the present trend of business and the prospects for its continuance, as well as the normal rate of growth. Let us say that allowance is made for an increase of a fraction over 1 per cent each year as a result of the growth in population, and that this is raised to $2\frac{1}{2}$ per cent to cover the increase in purchasing power per individual. In the particular case that I have in mind the sales manager arbitrarily increases this rate a little—up to say 3 per cent—to cover the increased share of the total business of the industry which he believes his own company should get.

(Continued on page 534)

[Foreign Trade Opportunities]

Bluing	27383	Alexandria, Egypt ...Agency	
Fertilizers	27374	Lausanne, Switzerland Purchase land.	
Insecticides	27416	Bergedorf, Germany ...Purchase	
Paints	27384	Gibraltar	Both
Paints and varnishes	27368	Hamburg, Germany ...Both	
Paints, varnishes, and metal polishes.	27383	Alexandria, Egypt ...Both	
Pyroxylin sheets (noninflammable).	27415	Batavia, Java	Both
Automobile cleaning compound, liquid, in barrels.	27116	Berlin, Germany	Purchase
Borax, boric acid, carbonate of soda.	27135	Hamburg, Germany ...Purchase	
Borax, granulated, crystallized, white.	27115	Pirns, Germany	Agency
Butyl acetate, butyl alcohol, ethyl acetate.	27108	Sydney, Australia ...Purchase	
Calcium chloride	27105	Montreal, Canada ...Purchase	
Casein	27117	Hamburg, Germany ...Both	
Chemicals	27154	Bucharest, Rumania ...Agency	
Chemicals, heavy	27109	Sydney, Australia ...Agency	
Cocoa waste	27152	Altona, Germany ...Purchase	
Colors, titanium (white), white lead, and phosphate of lime	27112	Hamburg, Germany ...Agency	
Glue stock	27164	Hamburg, Germany ...Purchase	
Glypho and glykaramel.	27155	Bremen, Germany ...Purchase	
Guano, whale and fish tannage.	27106	Hamburg, Germany ...Purchase	
Oils, essential	27150	Hamburg, Germany ...Agency	
Paints and varnishes	27099	San Salvador, C. A. ...Agency	
Petrolatum, green and yellow.	27107	Hamburg, Germany ...Agency	
Resins, artificial, and gums.	27108	Sydney, Australia ...Purchase	
Rosin	27113	Hamburg, Germany ...Agency	
Rosin	27151	Milan, Italy ...Agency	
Rosin and sulfur	27109	Sydney, Australia ...Agency	
Rosin and sulfur	27117	Hamburg, Germany ...Agency	
Rosin and turpentine	27104	Hamburg, Germany ...Purchase	
Rosin and turpentine	27149	Hamburg, Germany ...Agency	
Rosin, turpentine, wood oil.	27111	Hamburg, Germany ...Agency	
Chemicals	27205	Nairobi, British East Africa.	
Chemicals, industrial	27231	Altona, Germany ...Agency	
Colemanite powder	27232	Wiesbaden, Germany Purchase	
Dental chemicals	27237	Mannheim, Germany ...Agency	
Dyes, pigment	27206	Meiningen, Germany ...Agency	
Explosives	27207	Bogota, Columbia ...Agency	
Fertilizers, chemical	27209	Quebec, Canada ...Agency	
Gas, compressed	27231	Altona, Germany ...Agency	
Insecticide adhesive for tree trunks.	27273	Genoa, Italy ...Purchase	
Magnesium oxchloride ..	27235	Sydney, Australia ...Purchase	
Naval stores	27208	Hamburg, Germany ...Agency	
Oil, orange	27230	Hamburg, Germany ...Agency	
Paints	27274	Buenos Aires, Argentina. Agency	
Paints and varnishes ..	27207	Bogota, Columbia ...Agency	
Paints and varnishes ..	27213	Sydney, Australia ...Agency	
Quassi wood	27256	Genoa, Italy ...Purchase	
Rosin	27234	Kobe, Japan ...Purchase	
Rosin and sulfur	27272	Hamburg, Germany ...Purchase	
Solvents for cellulose lacquers.	27206	Meiningen, Germany ..Purchase	
Zinc oxide	27271	Turin, Italy ...Agency	
Aniline dyes	27362	Danzig	Agency
Chemicals for glass manufacture.	27330	Calcutta, India	Purchase
Chemicals, metallurgical ..	27332	Stockholm, Sweden ...Agency	
Coal-tar pitch	27363	Lille, France	Agency
Fertilizer	27307	Toronto, Canada ...Agency	
Paints, varnishes, insulating compounds.	27331	Milan, Italy	Agency
Soda ash caustic soda ..	27329	Trieste, Italy	Agency
Bicarbonate and caustic soda, soda ash, carbide, etc.	27496	Caracas, Venezuela ...Agency	
Matches, safety and ordinary	27497	Cardiff, Wales	Purchase
Naval stores	27501	Hamburg, Germany ...Purchase	
Paints	27496	Caracas, Venezuela ...Agency	
Paints and boiler compounds	27509	Toronto, Canada ...Agency	
Paints and varnishes ..	27479	Rio de Janeiro, Brazil Agency	
Phosphate, hardrock and pebble, Florida	27450	Hamburg, Germany ...Agency	
Pigments, earth, especially orange and lemon oxide	27498	Dusseldorf, Germany Purchase	
Rosin	27496	Caracas, Venezuela ...Agency	
Borax	27629	Hamburg, Germany ...Agency	
Celluloid in sheets, inflammable, and noninflammable.	27592	Milan, Italy	Both
Copper sulphate	27637	Patras, Greece	Purchase
Dyes	27628	Prague, Czechoslovakia. Agency	
Glycerin	27547	Hamburg, Germany ..Purchase	
Naval stores	27625	Rotterdam, Netherlands. Purchase	

[News and Markets Section]

Organic Chemical and Dye Gains in 1926

**Synthetic Organic Chemicals Increase 37 Per Cent Over 1925 Production
Ethylene Glycol Production Up—Solvents Also Show Gains—Coal
Tar Dyes Increase 2 Per Cent for the Year—European Dyestuff
Conditions.**

(Special to CHEMICAL MARKETS)

Washington, D. C., Oct. 10—Domestic dye and organic chemical industries made notable progress during the year 1926 according to the tenth annual Census of Dyes and Other Synthetic Organic Chemicals issued this week by the U. S. Tariff Commission. Developments from year to year since 1917 in the manufacture of dyes and other finished coal-tar products are unparalleled in the history of the American chemical industry. During 1926 domestic dyes supplied 93 per cent of the apparent consumption, and there was, in addition, an exportable surplus of nearly 26,000,000 pounds, as compared with 1913 when 13 per cent of the dyes consumed were produced in this country, chiefly from imported intermediates. A significant feature of the year is that many of the new dyes are of purely American development, as contrasted with the development in former years of types previously made in Europe.

The manufacture of synthetic organic chemicals of noncoal-tar origin is increasing so rapidly that in value of products it bids fair to rival coal-tar chemicals in the near future. The production of 214,842,313 pounds in 1926 is a 37 per cent increase over that of 1925. Sales in 1926 were 168,712,158 pounds valued at \$29,719,270. The manufacture of solvents of noncoal-tar origin has reached large proportions. Of these the largest increase in production was shown in butanol, butyl acetate, ethyl acetate, amyl acetate, and ethylene glycol. The large production of ethylene glycol in 1926 was of more than usual interest because of its recently developed use as a partial substitute for glycerin in the manufacture of anti-freeze dynamite. Ethylene glycol has promise as an anti-freeze agent for automobile radiators.

There was notable progress in fast and specialty dyes, including those for dyeing rayon and mixed fabrics. The production of vat dyes established a new record, with a total of over 4,-

000,000 pounds, compared with 2,600,000 pounds in 1925. None of these dyes was made in the United States prior to the World War. The increase in domestic production is of interest to every consumer of fabrics as a matter of economy. Many domestic textile manufacturers have in recent years put on the market a variety of fast dyed fabrics of cotton and of linen marked with a trade name bearing a guarantee as to their fastness to washing and light. It is probable that colored textiles will soon be marked according to their fastness. A large variety of products or commodities are now graded and sold according to definite standards, and it is logical that the same policy should be adopted by the textile industry.

The total production of coal-tar dyes by 61 firms in 1926 was 87,978,624 pounds, an increase of 2 per cent over the previous year. Sales in 1926 totaled 86,255,836 pounds, valued at \$36,313,648, at a weighted average of 42 cents per pound, or 10 per cent less than the corresponding average price during 1925. The average price in 1917 was \$1.42 per pound. The competition between domestic dye manufacturers is severe, and resulted in 16 fewer firms engaged in production in 1926 than in 1925.

The imports of dyes during 1926 were 4,673,196 pounds, valued at \$4,103,301, representing a decrease of 10 per cent in quantity and 11.5 per cent in value, as compared with 1925.

Exports of dyes in 1926 increased slightly in quantity, but decreased 11 per cent in value, as compared with 1925.

Competition among the dye-producing nations of the world has been severe, particularly in the sale of the cheaper bulk colors to China, British India, and other non-producing nations. The trend toward the increased use of fast dyes, including vat dyes and other high priced colors, continues and promises to increase.

A number of international agreements were negotiated in 1926 be-

tween important groups of the producing nations for the purpose of stabilizing prices and reducing the severe competition, possibly by a division of world markets. It is reported that the German interests have negotiated agreements with Japanese, French, and Swiss industries.

Germany continues to make organized efforts to regain her former dominance of the world's dye markets. In 1926 the Interessens Gemeinschaft greatly expanded its operations by gaining control of several German chemical companies occupying important positions in related branches of the chemical industry. It is reported that the capital increase of the Interessens Gemeinschaft from 646 million reich marks in 1925 to 1,100 million reich marks in 1926 will be used in extending its nitrogen plants and in erecting new plants to utilize the Bergius process of liquifying coal.

Germany has been successful in extending her export trade, particularly in the higher priced dyes; her prewar trade in the cheap bulk colors, such as indigo and sulphur black, has not been recovered.

In Great Britain the chemical industry, as well as other industries, was seriously affected by the coal strike of 1926. The British, like the Germans, have formed mergers which make it possible to conclude trade agreements with similar large groups in other countries.

In Switzerland the dye industry has suffered from the effect of increased competition on indigo.

Italy has increased her production of dyes in recent years. The Italians have begun the manufacture of synthetic indigo for which they have a modern plant with an annual capacity of over 3,000,000 pounds.

A new antioxidant for rubber products, called Neozone, has been developed by E. I. du Pont de Nemours & Co., Wilmington, Del. It is designed to prevent deterioration and loss of strength and elasticity of rubber due to oxidation. The company states that it has been thoroughly tested for use on various types of rubber compounds and that although the product is classed as an antioxidant, it is equally effective in improving resistance of rubber compounds to high temperatures regardless of whether oxygen is present.

Japan Subsidizes Indigo and Soda Ash

Government Acts Favorably on Report of Investigation Committee—Total Dyestuff Subsidy Increased to 8,000,000 yen—Protection Extended to Seven Years—Encouraging Funds to be Given Soda Ash.

(Special to CHEMICAL MARKETS)

Tokyo, September 23—The Japanese Government finally has established the basic policy for artificial indigo and soda ash industries, acting upon the resolution adopted by the special committee of the Commerce and Industry Investigation Commission organized by the Government. The protective policy in the form of subsidy will be administered to indigo and soda ash. For the protection of indigo, the Government has decided to include it into the list of subsidized products and increase the amount of subsidy for all kinds of dyestuffs from yen 4,000,000 to yen 8,000,000. The term of protection was extended from six to seven years. For the latter the Government is to give proper amount of encouraging funds instead of the fixed subsidy.

The resolution submitted by the commission and adopted by the Government is: "The dyestuff industry forms the axle of the chemical industry, and has made a rapid growth here, due to the protective policy of the Government. Still there are many kinds of dyes that cannot be made here, though more than half of the entire demand in Japan is supplied by home products. It is greatly regretted that artificial indigo is being imported mostly from foreign countries. This is due to the fact that special technical difficulties are encountered in indigo manufacture. Japan has completed the technical study and succeeded in experiments but circumstances prohibit Japan from commencing business. The Government should take steps to encourage its production to establish the foundation."

BRITISH SULFATE SALE TO JAPAN EXPANDING

(Special to CHEMICAL MARKETS)

Tokyo, Sept. 20—Competition threatens to develop in sulfate of ammonia between Ahrens Co., and Brunner, Mond & Co. Orders secured for the autumn dressing are estimated at 14,000 tons in German stock and 55,000 tons in British stock. This has reversed condition prevailing last year and is considered a success for the policy of the British firm. The import price is the same but the elimination of subagents enable the British firm to place the stock in consumers' hands at yen 3 lower. In these circumstances German sulfate will lose its footing. The German company is

consulting its agents, the Mitsui Bussan and Mitsubishi Shoji. Reduction in price is suggested, doing away with the policy of fixing prices by yen 1.20 for shipment for the following three months, but the suggestion does not appear to be practicable. The company is of the impression that the root of the matter lies in tight money, making the farmers' budget a severe one. Brunner, Mond & Co., expects to call a conference of its 24 agents in Japan shortly to lay down a selling program. German sulfate is quoted at yen 128 on spot, yen 126 for stock on the way and yen 125 for August-September loading.

CELLOSOLVE LOWER

The prices of cellosolve and cellosolve acetate were radically reduced last week. Reduction amounts to approximately 8c lb. for l.c.l. quantities, making the new schedule read as follows: Cellosolve, single 50 gal. drums, 27c lb. or \$2.09 gal., l.c.l. lots, 25c lb. or \$1.94 gal. and carload drums, 23c lb. or \$1.79 gal. The new prices for cellosolve acetate are; single 50 gal. drums, 30c lb. or \$2.43 gal., l.c.l. drums 28c lb. or \$2.26 gal. and carload drums, 26c lb. or \$2.10 gal.

Dr. W. C. Moore, U. S. Industrial Alcohol Co., addressed a joint meeting of the New York and North Jersey sections of the American Chemical Society at the Chemists Club, Oct. 7, on the "Application of Physical Chemistry to the Alcohol Industry."

Dr. Charles H. Herty, Chemical Foundation, and T. Alfred Fleming, National Board of Fire Underwriters, spoke at the regular meeting of the North Jersey section of the American Chemical Society at the Washington Restaurant, Newark, Oct. 10, at eight o'clock.

Old Father Time and a modern business man are featured on a novel card which is being mailed to members of the National Paint, Oil and Varnish Assn., Inc., as a reminder that the Fortieth Annual Convention will be held at Atlantic City, Oct. 26, 27, and 28.

FRENCH CALCIUM ACETATE DUTIABLE AT 20 PER CENT

Under mandatory provisions of the tariff act providing for imposition of countervailing duties on imports from a nation which assesses duties in excess of the American rate, calcium acetate imported from France is now subject to a duty to 20 per cent ad valorem, in accordance with paragraph 1541 in the free list. This paragraph provides "that if any country imposes a duty on calcium acetate when imported from the United States, an equal duty shall be imposed upon such article coming into the United States from such country" This is the only chemical involved to date in the new rate changes between this government and that of France.

The United States has imported about 4,000,000 pounds of calcium acetate a year recently, but little, if any, of this has come from France, the larger part of the imports coming from Canada.

HAMBURG MARKET STRONG

(Special to CHEMICAL MARKETS)

Hamburg, Sept. 29, (By Mail)—Business in heavy chemicals has shown a gradual improvement during the past two weeks. Based on good sized orders the domestic market for sodium sulfide, sal ammoniac, naphthaline, oxalic acid, lactic acid and caustic potash has been good.

Prices for bromides have been weaker at the factories and offers direct to the consumers have been low. Citric and tartaric acids and glycerin are neglected. Pharmaceuticals are experiencing a good demand except caffeine, which is lower.

Richard Sheldrick, organizer and president, North River Chemical Corp., New York City, died at his home in East Orange, N. J., last week after an illness of six months. He was sixty-three years old and had been prominent in the chemical industry for thirty years, formerly serving as secretary of the Kalbfleisch Corp., New York City.

Mathieson Alkali Works, New York, has appointed F. H. Lovenburg, formerly St. Louis district sales manager, to a similar capacity in the New England district at Providence, to replace C. J. Clegg, who has resigned.

J. Sidney Tremoulet, for twenty-four years manager, New Orleans branch, Grasselli Chemical Co., and since 1925 manager, Birmingham, Ala., branch, died last week after a brief illness.

Sulfuric Acid Output Lower in First Half 1927

Government Canvas Records Decline From Corresponding Period During 1926—Acid Phosphate Production Also Lower by 21.6 Per Cent—Reports Received From 172 Manufacturing Establishments.

(Special to CHEMICAL MARKETS)

Washington, D. C., October 12, 1927.—Dept. of Commerce announces that fertilizer manufacturers during the first half of 1927 produced 779,079 tons of sulfuric acid and consumed 853,888 tons in the manufacture of 1,563,700 tons of acid phosphates containing 26,893,000 units of 20 lbs. available phosphoric acid. The production of sulfuric acid by fertilizer manufacturers was thus equal to 91.2 per cent of their total consumption. Acid phosphates sold as such amounted to 1,107,014 tons, containing 18,758,000 units of available phosphoric acid; and 1,299,254 tons of acid phosphates, containing 21,350,000 units were consumed in the manufacture of other fertilizers.

Statistics for the first half of 1927 as compared with those for the first half of 1926 show decreases of 21.6 per cent in production of acid phosphates and 6.3 per cent in total sales of acid phosphates, an increase of 7.6 per cent in stocks of sulfuric acid on hand at the end of the period, and a decrease of 13.1 per cent in stocks of acid phosphates.

The statistics are based on the reports of 172 establishments, of which 114 are located in the Southern district, distributed by States as follows: Alabama, 16; Arkansas, 1; Florida, 6; Georgia, 35; Louisiana, 5; Mississippi, 6; North Carolina, 18; South Carolina, 19; Tennessee, 7; Texas 1. The remaining 58 establishments are located in the Northern and Western districts, distributed by States as follows: California, 2; Illinois, 4; Indiana, 5; Kentucky 1; Maryland, 7; Massachusetts, 2; Michigan, 1; Montana, 1; New Jersey, 4; New York, 1; Ohio, 17; Pennsylvania, 4; Virginia, 9. The manufacture of sulfuric acid was reported by 56 establishments in the Southern district and 25 in the Northern and Western districts.

GERMAN POTASH SALES INCREASE DURING 1927

Washington, D. C., Oct. 12—Potash sales in Germany increased to 715,094 tons potassium oxide during the first half of 1927 from 601,450 tons in the 1926 period, reports Assistant Commercial Attache Daniel Reagan, Paris to the Department of Commerce.

Despite the large increase in Ger-

man sales the French output of potash, which has been increasing steadily since the war declined slightly the first half of 1927, sylvinite having reached a total of 1,157,300 tons compared with 1,135,100 in 1926. The potassium oxide production was about equal at 184,000 tons.

CANADA PEST CONTROL ACT EFFECTIVE OCT. 1

(Special to CHEMICAL MARKETS)

Toronto, Ont., Oct. 7—The Agricultural Pests Control Act regulating the sale of economic poisons passed at the last session of the Canadian Parliament became effective Oct. 1st. The act applies to insecticides, fungicides, germicides, weed killers, rat and gopher poisons, sheep dips. The manufacturer or importing agents must register economic poisons with the Seed Commissioner, Ottawa. Every package must be labelled to show the name and address of the manufacturer, brand name, registration number, the word "poison" and symbol thereof if harmful to human or animal life in any sufficient degree, antidote for the poison, guaranteed analysis of the contents, and the net quantity by weight or volume. Present stocks and containers which do not comply with the act and regulations must be removed from sale by July 1, 1928.

The I. G. has acquired the rights to operate the Lilienroth electric furnace processes, covered by German patents Nos. 406, 411 and 409, 344, at the Piesteritz plant of the Mitteldeutsche Stickstoffwerke, according to Consulate General Hamilton C. Claiborne, Frankfort on Main. It is reported that the output of phosphorus will be 70 metric tons a day. The I. G. has patented improvements of the Lilienroth process which are registered under the German patent Nos. 408, 925, 423, 275, 431, 504, 435, 387, and 438, 178.

RUSSIAN CHEMICAL TRUST

Soviet Russia has decided to form a syndicate of chemical plants to minimize internal competition and to increase sales according to a report from Berlin. Its capital is 11,500,000 rubles and it will include Coal-Chemistry Trust, Northern Chemical Trust, Moscow Chemical Industry, Trust, Aniline Trust, Lacquers Trust, Benzol Trust, and Wood-distillation Trust.

SECOND HEARING HELD ON CAUSTIC POISON ACT

(Special to CHEMICAL MARKETS)

Washington, D. C., Oct. 12—A second conference was held at the Department of Agriculture on last Friday in connection with the proposed regulations for the enforcement of the Federal Caustic Poison Act at which retail druggists, who were unable to attend the first conference because of their annual convention, were given a chance to tell the department of their thoughts on the regulation.

Among those attending this conference were Prof. James Beale, Urbana, Ill.; John Tierney, secretary of the Manufacturing Chemists Ass'n.; and Carson P. Frailey, secretary American Drug Manufacturers Ass'n. Walter G. Campbell presided.

Prof. Beale spoke of the inconsistencies in the law while Mr. Tierney told something of the legislative history of the law and said that information in the hands of Congress in drafting this bill showed that beyond lye products no cases of poisoning were cited. The first conference was held on September 20 and the arguments made then were largely repeated at this second conference.

A general meeting of the Society of Chemical Industry, the first American general meeting since 1912, will be held in New York the week of Sept. 3, 1928. It precedes the meeting of the American Chemical Society the week of Sept. 10.

The American Section will hold a joint meeting with the Societe de Chimie Industrielle, American Chemical Society and American Electrochemical Society at eight o'clock, Nov. 4, at the Chemists' Club. An informal dinner at seven will precede the meeting.

Charles E. Mullin, Philadelphia consulting chemist, has joined the faculty of Clemson College as Professor of Textile Chemistry and Dyeing. He is a fellow of the American Institute of Chemists and is the third American to be elected a fellow of the Textile Institute of England. He is also a member of the American Chemical Society and the American Association of Textile Chemists and Colorists.

Mathieson Alkali Works' Bulletin No. 271 deal with chemicals for the petroleum industry, especially those involved in the Mathieson hypochlorite process for treating petroleum distillates.

NEW DU PONT DYES

Ponsol Brown AR Double Paste and Pontacyl Light Red 4BL are the names of a new vat dye and acid dyestuff which have been put in the Dyestuffs Department, E. I. Du Pont de Nemours & Co.

Ponsol Brown AR Double Paste is described as a bright reddish brown of extremely good fastness to light, washing and chlorine, suitable for dyeing on all types of machines and especially valuable for dyeing fauns, tans, browns, olive drabs for Government use, and similar shades. Pontacyl Light Red 4BL is exceptionally level dyeing and very fast to light, being particularly suitable for dyeing mode shades in combination with other fast to light acid colors or acid alizarine colors, producing taupes, grays, fauns, etc., for woolen goods requiring the maximum light fastness such as upholstery materials and fine dress goods.

S. O. C. M. A. CAN CARE FOR DOMESTIC REQUIREMENTS

In connection with the tariff problems now existing between this country and France, and still awaiting solution. August Merz, president, Synthetic Organic Chemical Mfrs. Assn., has sent a letter to the administration expressing the hope that some other method than a retaliatory tariff may be found to settle the problem, but emphasizing the fact that "the volume and variety of synthetic organic chemicals could easily be increased to care for all our domestic requirements" and that "the most drastic provisions invoked against the products of the similar industry of France would work no hardship on the American consumers of such products."

In commemoration of the 100th anniversary of the birth of Marcellin Berthelot, "father of organic synthetic chemistry", Paul Claudel, French Ambassador, Dr. Charles H. Herty, Chemical Foundation, Prof. Theodore Richards, Harvard University, and Dr. John H. Finley will speak at a dinner at the Ritz-Carlton Oct. 25.

United States Civil Service Commission announces open competitive examinations for Junior Chemist and Senior Aid in Laboratory Technique, each \$1,860 a year. Application for the former must be on file with the Civil Service Commission at Washington, D. C. not later than Oct. 29, and for the latter, not later than Nov. 12.

September Cottonseed Oil Sales Large

The following market report and chart by W. A. Storts of Edw. Flash Co., are resume of the cottonseed position for September.

September 28, 1927

Census report showed August consumption refined oil 339,323 bbls. larger than generally expected. Seed receipts during August were also heavy, comparatively.

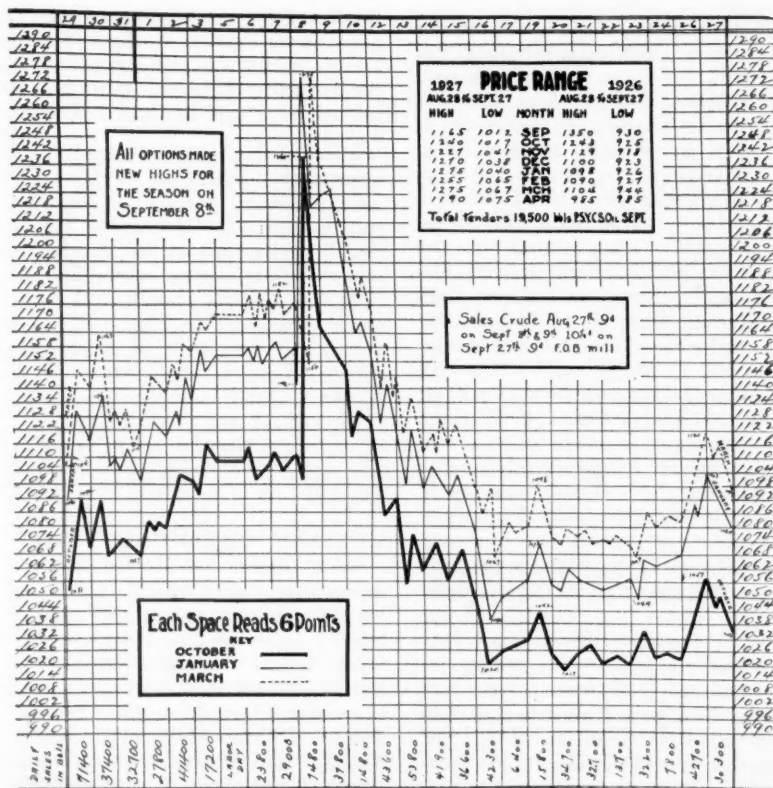
Prices of cotton oil "futures" and crude today are very close to prices prevailing one month ago, although in meantime, due to Census report on cotton and speculative influences, the market advanced 13¢ per lb. September 8th and 9th, and has been easier ever since, today selling at practically same prices that prevailed one month ago.

"Futures" on New York Produce Exchange are very active, with a broad market prevailing at present. During the month of August, there were 603,600 bbls. of oil traded in, and during the month of September almost 800,000 bbls. traded in on Exchange, indicating the thorough approval of this market and easiness to get in and out of on good size quantities.

Crude is not moving as freely as usual at beginning of a new season, but heavy ginning returns indicate enormous quantities of seed available and seed, from reports, has been moving heavily. There should be large volume handled during October, and pressure from this seed may result in the continuance of heavy hedge selling of "futures".

Tomorrow is first tender day for October and there will probably be 8,000 to 10,000 bbls. of oil tendered, as the warehouse stocks are very heavy at present. It is impossible to forecast just what effect these tenders will have, but probably will result in somewhat widening the differences between October and "futures". Indications at present are that these tenders will move into consumptive channels without creating much change in prices.

The market is unquestionably a two-sided affair at present. With heavy seed and crude movement in prospect, the time for a permanent advance seems inopportune, but, on a fair decline from present levels, we believe that both March and May oil could be bought without great risk.



[The Industry's Finances]

Davison-Pyrites Combine Interests in Cuba

Interchange of Stocks Figures In Deal—Two New Davison Directors—Jones & McLaughlin Dividend—New Cyanamid Issue—Columbia Carbon Quarter.

An interchange of stock whereby the Davison Chemical Co., Baltimore, and Pyrites Co. Ltd., will combine interests in the Cuban properties of the Baltimore corporation has been agreed upon and consummated, according to report from authoritative sources. The Davison Co. has listed 90,000 additional shares of stock on the New York Stock Exchange, to be exchanged for a like amount of Pyrites Co. shares, the latter being a subsidiary of Rio Tinto Co., London, which is believed to have virtual control of the pyrites situation. Lord Denbigh, a director of the Rio Tinto, and A. D. Ledoux, of the Pyrites Co., are to be directors in the Davison Co. The value of the stock given to Davison is guaranteed by Rio Tinto which owns all the Pyrites stock. One result of the arrangement is to be the erection at Curtis Bay of a large copper bleaching plant, which will take the sinters from the pyrites ore used by Davison and extract therefrom pig iron and copper. This will make it unnecessary to ship the sinter to Rio Tinto's plant at Wilmington. Contracts with the Pyrites Company for a supply of ores have been entered into for a term of years, and the economies made possible by the welding of interests will contribute to the Davison revenues. In this connection as stated in Oct. 6 issue of "CHEMICAL MARKETS," Silica Gel Corp., a Davison subsidiary has just arranged for the issuance of \$1,700,000 debentures 6½ per cent five year notes and for

the sale of \$500,000 in no par common stock to a group identified with the directorate. The debentures will give holders the right to buy shares of Silica Gel at any time within five years at \$30; a share in the ratio of seven shares for each \$1000 of the debentures held. The proceeds will be used to reimburse Davison company and for advances amounting to \$1,500,000 and to provide working capital. It is also proposed to build a plant for Silica Gel who will enter upon a period of active development.

Jones & Laughlin Steel Corp. report for three months ended Sept. 30, will show less net income than preceding quarter, which returned \$3,576,079 or \$4.45 a share on common stock, it is reported in the "Wall St. Journal". Net income for the first nine months of the year also was less than in the corresponding period of 1926 when \$11,759,556 or \$15.29 a share was earned on the common.

Amoskeag Co., Boston holding company, reports for year ended May 31, 1927, surplus of \$350,358, compared with \$308,798 the previous year. Amoskeag Mfg. Co., controlled by Amoskeag Co. reports for year ended June 30, 1927, profit of \$66,054, compared with a loss of \$3,565,104 for the thirteen months ended June 30, 1926.

Turbize Artificial Silk Co. has declared quarterly dividends of 1½ per cent on preferred stock, payable Oct. 1, to stockholders of record Sept. 20, and the same amount on preferred payable Jan. 2, 1928, on stock of record Dec. 20.

Swan River Tire & Rubber Co. has been incorporated at Toledo, O., with capital of \$50,000 in preferred stock and 1,000 shares of no par common to manufacture rubber tires for children's vehicles and similar products.

Columbian Carbon Co. declared the regular quarterly dividend of \$1, payable Nov. 1, to stock of record Oct. 18.

NEW CYANAMID ISSUE

American Cyanamid Co. placed \$5,000,000 of 15 year sinking fund 5% debentures on the market last week through the Guaranty Co., Alex. Brown & Sons, and Brown Bros. & Co. The debentures are priced at 94 and interest, to yield about 5.60 per cent, maturing Oct. 1, 1942. It was also announced that average net earnings for five years ended June 30, 1927, amounted to \$1,568,130, or more than 4.57 times interest charges on the total funded debt to be outstanding with the completion of the present financing.

Proceeds of this issue are to be used for additions to plant facilities, diversification of the company's products and for other corporate purposes connected with future development.

Earnings of William Wrigley Jr., Co., Chicago, for three months ended Sept. 30 will establish record for any quarter in history of Company and barring adverse developments in final three months of year, 1927 will be best year since company was established, according to "Wall Street Journal". Wrigley should earn close to \$10,000,000 this year after taxes and all charges, equal to \$5.55 a share on 1,800,000 shares of no par stock. In 1925 and 1926 net earnings were about \$9,100,000 or \$5.05 a share.

Certain-teed Products Corp. has declared the regular quarterly dividends of \$1 a share on common and \$1.75 a share on first and second preferred, payable Oct. 1 to holders of record Sept. 17. Officers of the company stated that July net profits were well ahead of July last year and that August sales were ahead of August last year. Eight months' profits ended Aug. 31 are expected to exceed those of the like period of 1926.

American Solvents & Chemical Co. voting trust certificates for common stock have been admitted to unlisted trading privileges on the N. Y. Curb Exchange and the common stock has been removed from trading.

Richards Chemical Works, Jersey City, N. J., will erect a four-story plant, 100 by 250 feet, cost about \$100,000, to be used for the production of chemicals for renovating silks. About 300 hands will be employed.

Red Star Yeast & Products Co., Milwaukee, has filed plans for a three-story addition to be equipped as a mechanical drying unit, to cost about \$45,000.

[Foreign Exchange]

	Par	Current
Great Britain (pound sterling)...	4.866	4.867
France (franc) .....	.193	.039
Italy (lira) .....	.193	.054
Belgium (franc) .....	.198	.139
Czechoslovakia (crown) per 100	20.30	2.96
Denmark (krone) .....	.268	.268
Germany (mark) .....	.238	.238
Holland (Guilder) .....	.402	.401
Poland (zloty) .....	.193	.114
Norway (krone) .....	.258	.264
Spain (peseta) .....	.193	.175
Sweden (krone) .....	.268	.269
Switzerland (franc) .....	.193	.193
Argentina (peso) .....	.414	.427
Brazil (milreis) .....	.324	.119
Japan (yen) .....	.499	.466
India (rupee) .....	.485	.364
China (Silver dollar, Hongkong)	.789	.489
(Tael—Peking, silver)	1.146	.650
(Tael—Shanghai, silver)	1.986	.618

[Stocks & Bonds]

	1926		1927		Current	
	High	Low	High	Low	Bid	Asked
*Air Reduction	146%	107½	199½	134½	175	178
*Allied Chem.	148%	108	161½	131	158½	159
*Allied Chem. pfd.	122%	118%	124½	120	122½	123
Am. Ag. Chem.	34%	9	14%	8½	13½	14
*Am. Ag. Chem. pfd.	96½	35%	51%	28½	46½	46½
*Am. Can.	63½	38%	61%	43%	64½	64½
*Am. Can. pfd.	130½	121	138	126	133½	136
*Am. Cyan. "A"	46	36½	40	25	25	40
*Am. Cyan. "B"	47	35½	35	29	25	29
*Am. Linseed	52%	25%	50	20½	49½	50
*Am. Linseed pfd.	87	68%	81	46%	80½	81
*Am. Metals	57%	42½	46%	38	42	42%
*Am. Metals pfd.	120	113½	112	107	109½	110
Am. Rayon Prod.	35%	29%	16	3½	12%	14
*Am. Smelting	152	109%	172½	132%	168%	169½
*Am. Smelting pfd.	122%	112%	131	119½	130½	131
*Am. Zinc	12½	5%	10½	7	6	6½
*Am. Zinc pfd.	54½	30	51½	39	36	36½
Anglo Chil. Nitrate	101	97½	108	93	93	93
*Archer-Dan-Mid.	34%	36	47	38	46	47
*Archer-Dan-Mid. pfd.	108	100	100½	95½	110½	...
*Armour Dal pfd.	97%	90%	96½	86	85½	86½
*Atlas Powder	64	54	65	56½	63	63%
*Atlas Powder pfd.	97½	96	105	98	93	105
*Brooklyn Un Gas	98	68	136	89%	136½	138
*By-Products Co.	93	53	92½	66	72	75
*By-Products Co. pfd.	...	...	115	105	109	112
*Calla L & Z	2%	1½	2%	1½	1½	1½
Canad. Ind.	20	16½	37½	14	36%	37½
Canad. Salt	145	131	115	105	105	115
Casein Co.	...	...	191	149	165	175
Celluloid Corp.	26	16	105	16	105	105
Celluloid Corp. pfd.	8	55	110	63	91	91
*Certainseed Prod.	49½	36½	55%	42	51½	51½
Charcoal Iron	33½	34	40	8	36	40
Chesbore Mfg. Co.	78	65	115	73	109½	115
Clark Co. Fred	8	3%	4	2	2½	4
Cleve Cliff Iron	75	69½	86	99	96	99
*Columb Carbon	70%	55%	89	66½	87	89
*Com. Sol B	237	118½	384	223	184	184½
*Cont. Can	92½	70	77½	58%	73½	73%
*Cont. Can pfd.	128	117½	127	120	124	125½
*Corn Prod.	51%	35%	63½	46%	57%	58
*Corn Prod. pfd.	130½	122½	132½	128	135	137
*Davison Chem.	46%	27½	34½	26½	36%	37½
*Davison Chem. pfd.	...	...	43½	43	43½	43½
*Deroc & Rayn A	104%	31	42%	37	37	39
*Deroc & Rayn 1st pfd.	105	40	110	101	110½	112½
*Dow Chem.	100	74	98%	100	100	100
*DuPont deb.	110½	100%	115½	105½	115	115½
*DuPont de Nem.	181½	157	334½	168	335	337
*Eastman Kodak	136%	106%	173½	126½	166½	168
*Freepot Texas	36	19%	90	34	89½	90
*Gen. Asphalt	94½	50	96%	72½	74½	74½
*Gen Asphalt pfd.	130	94%	144½	113	115%	117½
*Glidden	25%	15%	22	14½	15%	15%
*Gold Dust	56½	41½	68%	42	68½	68%
Grasselli	145	120	132	125	131	132
Grasselli, pfd.	103½	102	103	100	101	103
Hercules Powd. pfd.	115	110	122	115	118	122
*Household Prod.	48%	40	60½	43½	65½	65
Industrial Rayon	19%	10½	8½	4½	10½	10½
*Int. Agr.	26½	9%	10%	6%	9	10
*Int. Agr. pfd.	95	57	65	33	47½	48
*Int. Nickel	46½	32%	75	38½	67	67½
*Int. Salt	84½	61½	72	65	63½	69%
*MacAnd & Forbes	48½	40	43½	40	41	41½
*Mathieson Alk.	106½	62½	124%	82	113	115
*Mathieson Alk. pfd.	105	100	112	103	112	113
*Merck & Co.	78	57	86	65	71	74
*Merrimac	83	72	80	73	75	80
*Nat. Dist.	34	12½	51%	17	46%	46½
*Nat. Dist. pfd.	73½	57	69%	43½	55	59
*Nat. Lead	181	138	200	160	120½	122
*Nat. Lead pfd. "A"	120	116	138	117½	136	138
N. J. Zinc	214½	180	206	202	186	188
*Owens Bottle	99%	53%	84½	75½	77½	77½
*Penn Salt	91	71	91	74	84½	91
*Peoples Gas Cl	131	117	150½	103½	103½	103½
Proc. & Gam.	163	142½	222	157	220	222
Royal Bak Pdr.	213	190	240	161	159	...
Royal Bak Pdr. pfd.	105½	102	260	99	255	260
*Sherwin-William	108	108½	110	60	60	60
*St. Joseph Lead	48½	36%	43%	36	37	37½
Silica Gel.	22%	11%	19	13½	19	19½
Swan & Finch pfd.	...	...	30	20	20	30
*Swift & Co.	110	110	120½	100½	100½	100½
*Tenn C & C	16	10%	13½	8½	8%	8%
*Texas Gulf & S	142	119½	175½	76	75%	76
*Union Carbide	100%	78	144½	98%	132½	133
*United Dye pfd.	58	58	49	38½	34½	40
Un Gas Imp.	144½	84½	113	106	110	110%
*U. S. Gypsum	166	126	110	107	103½	108
*U. S. Ind. Al.	84½	45%	89	69	76	77
*U. S. Ind. Al pfd.	114%	90½	120	107½	118	120
*Va Car 6% w i	69	31%	43	26½	39½	40

GERMAN VEREIN PLANS PRODUCTION EXPANSION

An issue of 2,500,000 marks new common shares of Verein fuer chemische Industrie, Frankfurt on Main, raising the latter's common share capital to 6,500,000 marks, has been admitted to trading on the Frankfurt exchange, according to Trade Commissioner W. T. Daugherty. The "Verein" with Holzverkohlungindustrie dominates the German wood distillation industry. The capital increase is reported to be for "extension of production". It is doubtless related to proposed plans for production of activated carbon, to partly escape competition with the German Dye Trust's new synthetic methanol. The "verein" has plants at Bruecken bei Birkenfeld in Oldenburg, Friedrichshuette in Oberhessen, Greifenhagen in Pommern, Laufach in Bayern, Lorch am Rhein, Lohe in Westfalen, Neheim Huesten in Westfalen, Zueschen (Kreis Brilon) Oeventrop in Westfalen, and Mainz-Mombach. The three last named refine the crude product to acetone, acetic acid, methanol, solvents, formaldehyde, cellulose-acetate, etc.

Among other properties, the "Verein" participates in the ownership of Chemische Fabrik Vossowska, G. m. b. H., Upper Silesia, Fabryka Chemiczna Gzichow Spolka Akcyjna, Warsaw, Chemische Werke Carbon G. m. b. H., Ratibor, Upper Silesia and Chemische Fabrik Jueterbog G. m. b. H., Jueterbog near Berlin. The two last named companies produce activated carbon for which the "Verein" entered a 30-year community of interests at the beginning of 1927 with N. V. Allgemeene Norit Maatschappij, Amsterdam.

A meeting of the council of the German Alcohol Monopoly is to consider price and production policy for the coming "alcohol year" beginning October 1, 1927, says Trade Commissioner Daugherty. Production that has been artificially held down to a 65 per cent quota during the current year will probably be raised to 100 per cent, as the monopoly's turnover during the present fiscal year has been extremely satisfactory.

Sales of potable alcohol in Germany in the fiscal year now ending are estimated at about 675,000 hectoliters, against 562,000 hectoliters in the previous year. Sales of alcohol for production of medicinals and cosmetics will reach 50,000 hectoliters, against 41,000 hectoliters a year ago. The consumption of low-priced alcohol, including that sold as motor spirits, reached 1,250,000 hectoliters, against 1,030,000 hectoliters in 1925-1926.

Solvents

Butanol [Normal butyl alcohol]

Used in all good lacquers.
Excellent solvent for gums, oils and resins.
Basic material for many valuable organic compounds.

Dibutyl Phthalate

The plasticizer for lacquers.

Butalyde

[Normal butyl aldehyde]

Anti-oxidant.
Increases the life of rubber.
Accelerates vulcanization.

Acetone, C. P.

Universal solvent (no residual odor).
Base for synthetic resins.

Diacetone-Alcohol

High-boiling solvent in brush lacquers.

Denatured Alcohol

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Terre Haute
INDIANA

Plants—Terre Haute, Ind., and Peoria, Ill.



[Industrial Chemicals]

Another Advance Announced In Mercury Market

Follows One of Last Week Reflecting Sale In Spain—Alcohol Strong—
Prime Object Of Interest Is Preparation For Coming Contacts—Busi-
ness Otherwise Quiet—Textile Chemicals Lively.

Advanced
Barium Chloride Imp. 50c ton
Mercury \$4.00 flask

Declined
Acid Tartaric Imp. ¼c lb
Camphor Jap. 1c lb
Cream of Tartar Imp ½c lb
Glycerin C. P. ½c lb

	Trend of the Market					Pre-War
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	
Acetic Acid, Glacial, c-l ... lb.	.11%	.11%	.11%	.11%	.18½	20.00
Sulphuric Acid, Tanks 66 deg. ton	15.00	15.00	15.00	15.00	55.00	2.65
Amm. Sulfate c-l NY 100 ... lbs.	2.40	2.35	2.30	2.40	7.50	1.50
Bleaching Powder, c-l .100 lbs.	2.00	2.00	2.00	2.00	9.50	4.60
Copper Sulfate c-l NY 100 ... lbs.	5.00	5.00	5.00	4.75	20.00	.08
Potash Caustic c-l Imp. lb.	.07%	.07%	.07%	.07%	.87	.60
Soda Ash, 58 p.c. c-l .100 lbs.	1.94	1.94	1.94	1.94	3.50	1.42
Caustic Soda 76 p.c. c-l .100 lbs.	3.66	3.66	3.66	3.66	9.50	.06
Potassium Bichromate lb.	.08%	.08%	.08%	.08%	4.65	.18
Sodium Picrate lb.	.12	.12	.12	.10	1.25	
Average	3.046	3.041	3.036	3.012	10.79	2.99

Current Quotations and Comments on Specific Items, Pages 514-518

Preparation for the coming contracting period occupies the place of foremost interest among the heavy chemical producers at this time and consequently market conditions are stationary. The outstanding move of the week was featured in the mercury market and another advance followed the one of last week and was in direct reflection of conditions in the primary source. The Spanish production was sold this year at a higher price than had been expected, £ 22 flask, and immediately the market rose and barring a few minor fluctuations as a result of demand or speculation, the prevailing prices will doubtlessly be maintained through the balance of the season. Alcohol is moving freely at full prices and shows no indications of weakening. The raw material market is equally strong, despite recent efforts to break it with low priced offerings and it has been estimated that approximately 75% of the anti-freeze trade is covered for their winter requirements.

The movement of heavy acids and alkalies continues with freedom and prices are strong throughout the line. Soda ash, bleach and caustic soda are steady and sal ammoniac is less competitive leaving the makers in control of the market. The present prices seem an indefinite fixture and consumers who prefer foreign material will doubtlessly be forced to pay higher prices as replacement costs are higher than current selling prices. Copper carbon-

ate is lively, potassium chlorate is unchanged although some weakness is reported due to the efforts of another factor to enter the market and barium chloride prices are stronger from foreign sources. Imported tartaric acid again declined due to the diminishing demand and acetone continues firm with a heavy demand from both foreign and domestic consumption points. Textile chemicals are moving rapidly as a result of wider operations in that field and furnished with prominent strength are sodium acetate, which is somewhat scarce, sodium hyposulfite, calcium acetate and acetic acid.

Watt Pottery Co., Crooksville, O. has completed plans for constructing a new two-story addition, to cost about \$40,000. Work will begin at an early date.

LONDON MARKETS FIRM

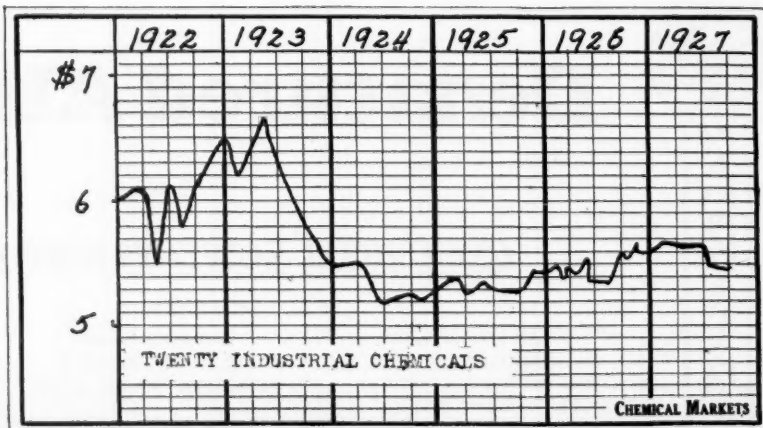
(Special to CHEMICAL MARKETS)

London, Sept. 29 (By Mail)—There is a better feeling in the heavy chemical markets both in London and in the North and a more favorable disposition is shown towards placing contracts over next year. Prices in general are fairly well maintained and few material changes have been recorded.

White powdered arsenic is available in restricted quantities only and a good demand is noted at £17.17s. 6d per ton f. o. b. mines. Acetic acid has been selling in fair quantities at steady prices of £37 per ton of 80 per cent material. Glacial grade acetic acid is offered at £66 in demi-johns and £56 ton in barrels ex works. Cream of tartar is easier and more freely offered at 95c per cwt less 2½ per cent for foreign round lots in bulk. The oxalic acid market is very steady on an increasing demand with prices at £29.15s@£-30 per ton ex wharf. An improvement is looked for in permanganate of potash and commercial grade is offered at 5½d per lb. in two cwt. drums. Creosote oil is in active demand and quotations have advanced for bulk quantities ex works to 7¾d per gal. Beta naphthol is steady at 1s. ½d. lb. Soda acetate has been in good demand and spot stocks are limited. Quotations are at £18. 5 s ton.

Coal tar products are in better demand and several items show an upward tendency with quotations at 8d for aniline oil.

Lead production of principal countries of the world, which furnished about 90% of the total in 1926, amounted to 135,859 short tons in August, a daily average rate of 4,383 tons, according to American Bureau of Metal Statistics. Estimate for non-reporting countries is 15,100 tons, making world's total 150,959 tons.



Cellosolve price reduced

THE Carbide and Carbon Chemicals Corporation is pleased to announce that increased manufacturing facilities now make it possible to reduce materially the price of Cellosolve and Cellosolve Acetate.

These powerful nitrocellulose solvents are now available at very attractive prices.

Consult current trade journals for new quotations.

**CARBIDE AND CARBON CHEMICALS
CORPORATION**

30 East Forty-second Street, New York City



Unit of Union Carbide and Carbon Corporation

[Crudes & Intermediates]

Nitrobenzene and Aniline Oil Schedules Advanced

Continued Strength Results In Price Move—Dimethylaniline Also Higher
Spot Naphthalene Raised—Future Prices To Be Announced Next
Week—Intimated To Be Of Like Figures—General Market Tighter—
Light Oil Derivatives In Unchanged Positions.

	Declined					
	Aniline Oil $\frac{1}{2}$ c to $\frac{3}{4}$ c lb					
	Dimethylaniline $\frac{1}{2}$ c lb					
	Naphthalene $\frac{1}{2}$ c lb					
	Nitrobenzene 1 c lb					
	Advanced					
	No declines					
	Trend of the Market					
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War
Benzene, pure tanks wks. ....gal.	.22	.22	.22	.25	1.10	.25
Naphthalene flake .....lb.	.05	.04 $\frac{1}{2}$	.04 $\frac{1}{2}$	.04 $\frac{1}{2}$	.16	.03
Phenol Spot .....lb.	.19	.17	.19	.18	1.50	.08
Toluene tanks wks .....ga	.35	.35	.35	.35	1.40	.10 $\frac{1}{2}$
Aniline Oil 1c-l .....lb.	.15 $\frac{1}{2}$	.15	.15	.16	1.40	.10 $\frac{1}{2}$
Alpha naphthylamine .....lb	.35	.35	.35	.35	1.25	—
Benzaldehyde .....lb	.70	.70	.70	.70	—	—
Betanaphthol bbls .....lb	.24	.24	.24	.24	1.50	.08
Dimethylaniline c-l .....lb	.32	.32	.32	.32	1.30	—
Paranitroaniline bbls .....lb	.52	.52	.52	.45	1.58	.18
Average	0.3097	0.309	0.309	.305		

Current Quotations and Comments on Specific Items, Pages 514-518

A notable expansion of operations in the intermediate consuming field was of dominant interest this week. The distribution of these products has been of excellent proportions during the past few weeks and with additional interest displayed by the consuming trade, coupled with a general strengthening of prices, active conditions surround the Fall market. It is the belief of some, that prices, particularly those in the intermediates group will be forced lower by the usual selling pressure at this time of the year. While this may be true of "inside deals", surface conditions appear differently this year and as indicated in our last review, that certain intermediate products would advance shortly, the feature development of the week, fulfill this prediction in the form of an advance in aniline products.

For some time the outstanding strength of nitrobenzene has been prominent and its consistency has reflected in an advance in price. The constant influx of the demand has enabled all makers to advance their schedules as well as those of the derivatives, aniline oil and dimethylaniline. Naphthalene, is another product that has been advanced. Present quotations are for immediate shipment only but when the future prices are announced, which will probably be next week, it is understood that they will be of equal value.

The remaining items have not been altered but the major portion of them are moving with freedom

and very firmly priced. Paranitraniline and beta-naphthol moving in good sized dimensions at full prices, phenol is firm and the continuity of phthalic anhydride along these lines, does not furnish cause for a price diversion. Cresylic acid is in better supply and a reduction is possible as to-day's prices are the result of a temporary shortage. Low tariff should also be allied in effecting a decline. Para-toluidine is stiffer.

Light oil distillates occupy the same position. Benzene and toluene are in very good demand but the price of the former is still weak and the declining gasoline market, surely does not tend to strengthen it. Xylene and solvent naphtha are in a poor state with the demand dull and prices soft.

SYNTHETIC DYE IMPORTS EXCEED SEPTEMBER 1926

(Special to CHEMICAL MARKETS)

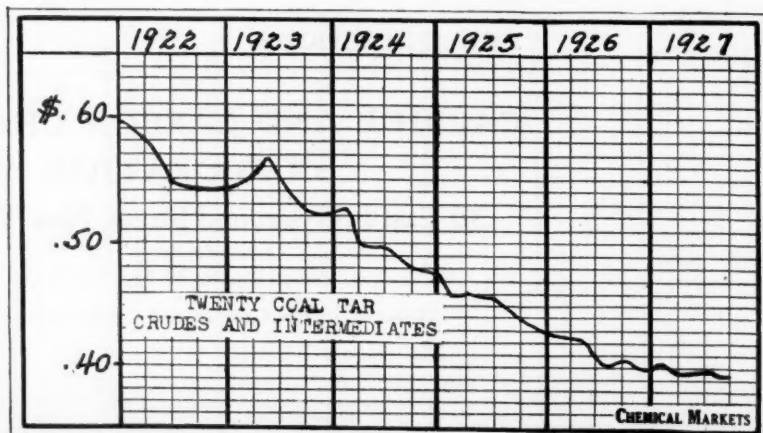
Washington, D. C. Oct. 10.—Imports of synthetic dyes for the month of September totaled 396,462 pounds, valued at \$325,338 according to a joint report of the Tariff Commission and the Department of Commerce, showing the imports of dyes, synthetic aromatic chemicals, medicinals, pharmaceuticals, intermediates and other coal tar products in paragraphs 27 and 28, tariff act of 1922. This compares with 387,533 pounds, valued at \$322,446 in Sept. 1926. Receipts of synthetic dyes for the nine months ended Sept. 30, were reported as 3,045,036 pounds, valued at \$2,523,163 as compared with 3,440,246 pounds, valued at \$3,084,095 in the first nine months of 1926.

Receipts of aromatic chemicals for September totaled 13,525 pounds, valued at \$16,103; color lakes, 950 pounds, valued at \$769; medicinals, intermediates and other coal tar products, 126,820 pounds, valued at \$63,496.

The report showed 887,447 pounds of dyes and colors and 876,786 pounds of intermediates remaining in bonded custom warehouses August 31, as compared with 925,569 and 844,058 pounds on July 31.

An international rayon cartel to consist of the German cartel, the French Bernheim Gillet group, the Union de Producteurs de Soie Artificielle, and E. I. Du Pont de Nemours & Co., is reported to be forming according to "Daily News Record". British Celanese, Ltd., is likely to remain on the outside, it is said.

E. I. Du Pont de Nemours Rayon Co. in commenting on the report, merely points out that it is already linked with the French Comptoir des Textiles Artificiels.





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and
NITROBENZENE
(Oil of Mirbane)

Skill acquired by the production of many millions of pounds of ANILINE and NITROBENZENE in the past decade is responsible for strict product UNIFORMITY

Diligent research by Du Pont Chemical Engineers during that time has yielded such important improvements in quality as to establishing new standards of PURITY.

When you purchase DU PONT ANILINE and NITROBENZENE you obtain chemicals of unsurpassed purity that does not vary from one shipment to the next. You have this assurance whether you buy in drums or in tank cars. May we submit samples for comparison?

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Dyestuffs Department, Sales Division

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New York, N. Y.
8 Thomas St.

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709 Hospital Trust Bldg.

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569 Mission Street

[Oils and Fats]

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Both Grades Show Strong Tendency—Cottonseed Unchanged—Chinawood Sharply Lower—Linseed Quiet—Olive Oil Foots Strong—Animal Oils Up in Sympathy With Western Markets.

Advanced						
Coconut oil, Ceylon, bbls. N. Y. $\frac{1}{4}$ c						
Corn oil, crude bbls., N. Y. $\frac{1}{4}$ c						
Oleo oil, No. 1 .03c						
Oleo oil, No. 2 .03 $\frac{1}{2}$ c						
Declined						
Chinawood Oil, spot bbls. .02 $\frac{1}{4}$ c						
Cottonseed oil, PSY, spot, $\frac{1}{4}$ c						
Rapeseed, Japanese, spot, .01c						
Trend of the Market						
Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War	
Lard No. 1 .....gal.	.81%	.87 $\frac{1}{2}$	.78%	.85%	2.90	.92
Neatsfoot 20 deg. cl. ....gal.	1.26	1.27%	1.26	1.31 $\frac{1}{4}$	8.45	.95
Stearic Acid T. P. ....lb.	.13 $\frac{1}{4}$	.13 $\frac{1}{4}$	.13 $\frac{1}{4}$	.15 $\frac{1}{4}$	.38	.12
Coconut Ceylon tanks .....lb.	.08%	.08 $\frac{1}{2}$	.08 $\frac{1}{2}$	.09 $\frac{1}{4}$	.40	.14
Cottonseed, crude tanks .....lb.	.09%	.09	.09 $\frac{1}{4}$	.11 $\frac{1}{2}$	.25	.08
Linseed crude c-l bbls .....gal.	.75%	.75%	.78	.88 $\frac{1}{2}$	1.85	.57
Olive, denatured .....gal.	1.60	1.65	1.63	1.30	4.60	1.05
Peanut refined .....lb.	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.15	.16 $\frac{1}{2}$	.30	.08
Soya Beans bbls .....lb.	.12	.12	.12	.13 $\frac{1}{2}$	.19 $\frac{1}{4}$	.07
Average	5.113	5.229	4.881	4.71	5.92	1.50

Current Quotations and Comments on Specific Items, Page 520

A general tone of firmness has characterized the local market during the past week despite the quietness which has prevailed. Cottonseed oil, after its advance during the previous week, varied but little, the price on spot and future markets declining somewhat, while crude oil gained an equal amount. Animal oils and fats are gradually rising in price to the level of those set by the Western market. The most rapid advance of the week has been made by the oleo oils, while there has been but a slight rise in the price of tallow over that reached last week.

Japanese rapeseed oil which has been firm for several weeks, receded from the strong position which it had maintained. English and blown rapeseed, however, advanced rapidly and now are quoted several cents higher than the prices which have prevailed for the past month. Consumer demand, in this case is strong and the market correspondingly firm.

Chinawood oil has declined sharply during the past week, but factors look for it to react almost immediately. It is possible that this is the beginning of a movement towards a more normal price level than that which it has been maintaining.

The movement on linseed oil continues quiet with a further slight drop in the five barrel price. Olive oil foots have shown no further advance but continue strong while coconut Ceylon has risen slightly. Menhaden and cod oils are firm and moving in

quite good volume with prices unchanged from previous quoted levels.

Drugs, chemicals, oils, and paints group, with an enrollment of 309 members, ranks fifth in numerical strength according to a survey of membership given in the year book of the Merchants Association of New York, now being distributed.

Wolverine Finishing Materials Co., Grand Rapids, recently organized with a capital of \$50,000, by J. M. Johnson, Grand Rapids, and associates, will operate a local plant for the manufacture of varnishes, paints, and lacquers.

Phosphorous Compounds Co., Niagara Falls, N. Y., is said to be taking steps towards dissolution.

EMERY CO. FELLOWSHIP AT MELLON INSTITUTE

A fellowship for the purpose of conducting research into tallow and greases has been established at Mellon Institute of Industrial Research, University of Pittsburgh, by Emery Candle Co., Cincinnati.

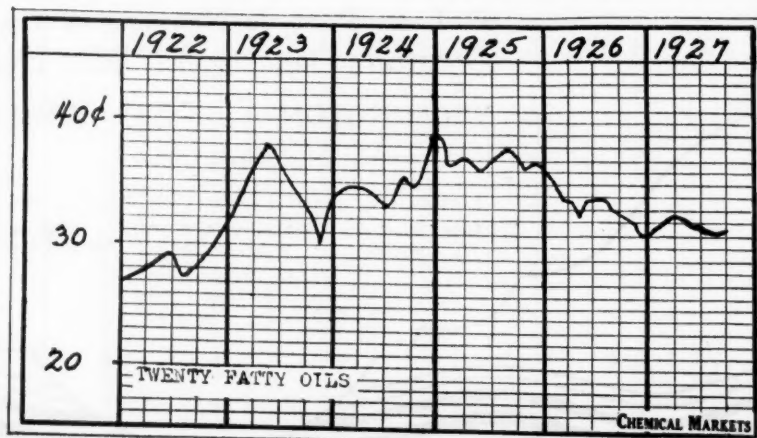
The work will be under the direction of Dr. Robert N. Wenzel, Palo Alto, Cal., and formerly connected with the research divisions of Monsanto Chemical Works and American Smelting and Refining Co. The establishment of the fellowship is for the purpose of bettering distillation and saponification processes of red oil and stearic acid. In addition, the Emery Co. is expanding the work being done at the Twitchell Laboratory of its own plant.

National Paint, Oil & Varnish Assn., Inc., will hold an 18 hole tournament for men at the Seaview Country Club, near Atlantic City, N. J., on Oct. 26 in connection with the fortieth annual convention of the association. A similar contest for ladies will be held on the following day.

Palmolive-Peet Soap Co., 360 Michigan Blvd., Chicago, has plans nearing completion of a new three story addition to its plant at Berkeley, Cal., reported to cost \$75,000, with equipment.

International Paint Corp., East St. Louis, Ill., has plans for a new branch plant and distributing works at Dundalk, Baltimore, Md., where site was recently acquired reported to cost \$25,000.

Kendell Mfg. Co. will supply 250 pounds soap powder at 3.97c per pound to the Quartermaster at Brooklyn Navy Yard; and 60 packages soap powder at 4.17c.





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THE NICHOLS CHEMICAL COMPANY, LIMITED, MONTREAL

[Agricultural Chemicals]

Advance In Chilean Nitrate Market Follows Here

Prices Raised by Virtue of European Demand—Domestic Demand Small—Blood and Tankage Quoted on Higher Range As Scarcity Prevails—Ammonium Sulfate Strong and Potash Salts Normal—Copper Sulfate Held At Unchanged Price.

Advanced						
Blood dried S. A. 5c unit						
Sodium Nitrate 5c 100 lbs						
Tankage S. A. 5c unit						
Declined						
No declines						
Trend of the Market						
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War
Acid Sulfuric 66% .....ton	\$15.00	\$15.00	\$15.00	\$15.00	\$55.00	\$20.00
Amm. Sulfate .....100 lbs.	2.35	2.30	2.30	2.40	1.75	2.65
Arsenic .....100lbs.	4.00	4.00	4.00	3.50	18.00	4.00
Copper Sulfate c-1 .....100 lbs.	5.00	5.00	5.00	4.75	20.00	4.60
Paris Green .....	.19	.19	.19	.19	.50	.11
Potash Murate 80% .....ton	36.40	36.40	36.40	34.90	...	...
Potash Sulfate 90% .....ton	47.30	47.30	47.30	45.85	440.00	48.07
Phosphate Acid 16% .....ton	9.00	9.00	10.00	10.00	11.00	3.00
Phosphate Rock 68% .....ton	3.00	3.00	3.00	3.00	2.65	3.00
Sodium Nitrate .....100 lbs.	2.40	2.35	2.30	2.36	5.00	1.90
Average	12.464	12.454	12.515	12.195	10.350	13.84

Current Quotations and Comments on Specific Items, Page 522

Underlying conditions surrounding the fertilizer market are firmer this week and strength is evidenced by advances in foreign blood and tankage and sodium nitrate. With primary suppliers of blood and tankage still disposing of their supplies to the stock feeding interests local sellers meet no difficulty in maintaining high price for their limited stock, in fact, both of these items show a wider price range than last week. South American quotations are also higher and offerings on this market are very small as the greater portion of the production is being consumed at fancy prices in Europe as well as in their own domestic market. Fish scrap is tighter and there is no hope for low prices for the remainder of the season. With the termination of the fishing season approaching, results are still poor and producers are far behind in fulfilling their commitments. Some local sales have been made at a new high level but the general market remains at the same price as last quoted.

The European demand seems to be fixing the market price on sodium nitrate, as Chilean producers, on the strength of the European market, again advanced their prices and local importers did likewise, to meet the increased import cost. The demand has not been of any great dimensions recently and the possibilities of a recession are stronger than those in favor of a further advance. Sulfate of ammonia is similarly strong, with contract consumers withdrawing their regular quotas. The movement of

potash derivatives has lessened somewhat but prices are still firm and the usual change of discount allowed by the importing interests is the only alteration in the market. Orders placed prior to November 1st will be granted a 3% reduction whence a 2% discount will be effective. The copper sulfate market is still firm with the demand continuing heavily for this period of the year and causing manufacturers to refuse any concessions on the established prices. Calcium arsenate has eased off within the past month but no price revision has been announced. Bone meal is strong as is cyanimid and routine sales are made at full prices. Fish acid is nominal and very difficult to obtain, due to the tight conditions in the fish scrap market. Arsenic is moving freely at the quoted levels while paris green and nicotine sulfate continue quietly.

SPAIN SULFATE IMPORTS

Increased importations of ammonium sulfate, through Malaga, Spain, for corresponding periods in 1926 and 1927, with countries of origin, are shown by the following statistics from Consul A. C. Brady:

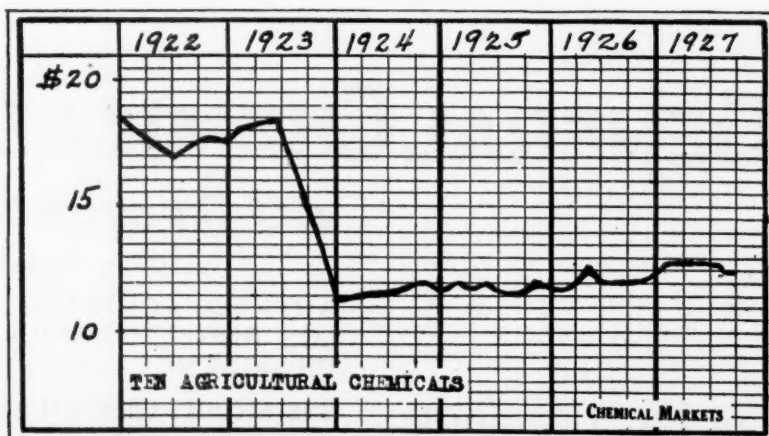
	Quarter Ended June 30, 1927	Quarter Ended June 30, 1927
	Kilos	Kilos
Germany	1,288,156	152,784
Great Britain	1,235,100	101,616
Belgium		
Netherlands		159,000
	2,523,256	413,400

In the quarters ending June 30, and March 31, 1927, synthetic nitrates were imported amounting to 122,668 and 131,592 kilos respectively, the entire amount originating in Germany. During quarter ended June 30, 1926, however, the imports of this commodity which passed through the Malaga customs district amounted to 600,000 kilos. All this was of Norwegian origin.

About 12,165 tons of commercial fertilizer was consumed in Florida during August, according to a monthly report issued by J. Hinton Pledger, supervising inspector of the State Department of Agriculture. Polk County, with a consumption of 1,548 tons, again led the other counties, and Orange County was second with 1,185 tons.

The Nova Scotia Department of Natural Resources is investigating potash deposits located on the property of the Malagash Salt Products Limited, Malagash, Nova Scotia, where experts hope for valuable finds. The deposit is expected to lie at a depth of between 600 and 900 feet.

Declared exports of guano from Peru to the United States in 1926 amounted to 7,775 tons, valued at \$263,250, reports Consul George A. Makinson, Lima.





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Cyanide, Potassium
Cyanide, Silver
Cyanide, Sodium
Cyanide, Zinc

Dicyandiamid
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[Industrial Raw Materials]

Rosin Market Again Reduced; Shellac Quiet

Sharp Declines Feature Rosin Market—Turpentine Also Lower In Savannah—Shading Heard On Shellac—Tanwoods Quiet—Egg Albumen and Egg Yolk Lower—Japan Wax Abundant.

Advanced	
Carnauba Wax No. 1 yellow 3c lb	
Carnauba Wax No. 2 regular 1c lb	
Declined	
Albumen, egg 2c lb	Japan Wax 1/4c lb
Candelilla Wax 1c lb	Rosin N 40c 280 lbs
Egg yolk 1c lb	Rosin WW 50c 280 lbs
Gum Batavia E Seed 1/4c lb	Rosin B,D,E,F,G,H,M, 60c 280 lbs
Gum Damar Batavia Stan. 1/4c lb	Rosin I,K, 65c 280 lbs

Current Quotations and Comments on Specific Items, Page 522

Business in the industrial raw material field is quiet at this time and the outstanding result of this condition is another substantial decline in rosin values. For the second successive week, rosin has been reduced, caused by a poor demand coupled with a heavier flow of receipts. The latter reason is due to the action of many of the producers who had been holding supplies for higher prices and are now releasing them gradually. This is particularly true of the top grades and further reductions will probably be seen next week. Turpentine was also lower for the week but is expected to return to its former position on a sizable demand.

Little activity has been seen in the market for tanning materials. Myrobalans are in good supply, but the prices for the remaining tanwoods are unsteady. There are no offerings from abroad, awaiting the arrival of more supplies for the interior. Waxes are somewhat weaker. The local market is well stocked with Japan wax and is consequently lower with possibilities of further reductions for the immediate future. Candelilla is correspondingly lower. Varnish gums fail to show any signs of rising from their long state of dormancy and while low quotations have been heard, generally, the importers are maintaining quoted prices. The shellac market is quiet and unchanged, with foreign suppliers adhering to their established position and importers quoting unchanged official prices but inclined to shading in effort to create a demand. Egg Albumen and egg yolk are lower with increasing supplies being entered from China.

(Special to CHEMICAL MARKETS)

Savannah, Ga., October 10, 1927—The week's turpentine market closed

at 6 1/2c gal., representing 1 3/4c gal. reduction from last week's prices. The demand was poor through the week and responsible for the decline but an improvement was seen this morning when several bids were entered, with a bid on Tuesday's offerings at 46 3/4c lb. This would indicate a rise but it is thought that any advance will end when last week's losses have been recovered. Concerning the future, it is believed that the season's increased production will tend to lessen any attempt to radically advance the market. Receipts of turpentine this week were 5,243 barrels, sales reported of 3,320 barrels, (additional sales of possibly 1,500 barrels on private terms). Shipments were only 887 barrels, however the coming week will show clearance of several thousand barrels. Present Savannah stock 32,534 barrels.

A decline in the rosin market was again registered this week as commons sold 15c lower than sales made at the close of last week. High grades dropped off considerably upon the release of further supplies from the interior. The demand which was also allied in effecting the reductions, was much inferior to that witnessed for some time and with a normal demand this week, prices will probably recover. Receipts of rosin this week 17,059 barrels, sales reported of 7,452 barrels and possibly 7,500 barrels additional privately sold. Shipments were small at 5,580 barrels but there are some shipments that have not yet been deducted from the stocks at Savannah which are 129,453 barrels. Current prices are: X, WW \$10.00@10.50; WG, \$8.90@9.30; N, \$7.75@8.00; M, K, I, H, G, F, E, D, B, \$7.65.

Jacksonville Fla.—Turpentine is weaker at 46 1/2c gal. with 55 barrels

held over this morning refusing lower bids. Rosin also lower at the following prices: X, WW, \$10.30, WG \$9.15; N, \$7.85; M, K, \$7.65; I, \$7.60; H, G, \$7.55; F, E, D, B, \$7.45. Present Jacksonville stocks, turpentine 32,986 barrels and rosin 81,240 barrels.

FRENCH TURPENTINE WEAK

Washington, D. C., Oct. 12—Export price for spot turpentine in the Landes district on Oct. 1, was 392 francs per 100 kilos, equivalent to \$4.87 per gallon, with the market weak, according to a cable to the Department of Commerce from Consul Lucien Memminger, Bordeaux.

The price of WW rosin was 250 francs per 100 kilos, equivalent to \$10.33 per 280 pounds. The market was firm and lower grades or rosin were dull. Final dip has been curtailed in some districts due to weather conditions and it is estimated that total virgin dip production this year will amount to 15 per cent less than last year.

The hard gum scrape which has just begun is considered of poor quality in France. The total exports in August amounted to 264 metric tons for turpentine and 5,224 metric tons of rosin.

CANADA ANTIMONY MINE HAS RESUMED OPERATION

Operations of the antimony mines at Lake George, Canada, twenty miles from Fredericton, New Brunswick, by a syndicate composed of Brig. Gen. Charles A. Smart, C. M. G., Westmount, Quebec, and associates, were resumed on Sept. 1, according to Consul Erick W. Magnuson, Halifax. An agreement was completed late in August transferring the leases on the property to these new interests by the North American Antimony Smelting Company.

The main corporation, of which the company operating the antimony mines at Lake George will be a subsidiary is reported to be capitalized at \$10,000,000 and will soon erect an extensive chemical manufacturing plant near the site of one of the large salt deposits existing in New Brunswick, near Hillsboro, and in Nova Scotia, near Malagash.

Russia is putting into operation its new naval stores plant, estimated to be capable of supplying one-sixth of the total domestic demand for rosin, according to information received by U. S. Department of Commerce.

Los Angeles Whaling Co. has been organized at Los Angeles, Cal., \$300,000 to engage in whaling in southern California waters.



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[Prices Current]

Heavy Chemicals, Coal-tar Products, Dye-and-tan-stuffs, Colors and Pigments, Fillers and Sizes, Fertilizer and Insecticide Materials, Naval Stores, Fatty Oils, etc.

Chemical prices quoted herein are those of American manufacturers for goods, spot New York, f. o. b., or ex-store, for immediate shipment, unless otherwise specified. Industrial chemical products sold principally on a basis of f. o. b. works are specified as such. Quotations on imported chemicals are so designated. Resale stocks sufficient to be a factor in the market, are quoted in addition to makers' prices and are indicated as "second hands."

Oils and fats are quoted spot New York, or ex-dock.

Quotations on products sold f. o. b. mills, or spot Pacific Coast are so designated.

Industrial raw materials are quoted spot New York, f. o. b., or ex-dock. Materials sold f. o. b. works or delivered at various sections of the country are so designated.

The range of prices given is not "bid and asked," but indicates quotations from different sellers, based on varying grades or quantities or both. Containers named are the original packages most commonly used in the New York market.

Acetaldehyde Alcohol Ethyl

Acetaldehyde drs. 1c-1 wks. ....	.24	: .26
ACETANILID, tech 150 lb bbls. ....	.20	: .31
Acetic Anhydride		
92-95% 100 lb cys. ....	.29	: .35
Acetone, CP, 700 lb drs c-1 wks. ....	.65	: .12
Acetone Oil drs. N. Y.	1.65	: 1.75
Acetyl Chloride, 100 lb cys. ....	.42	: .45
ACID, Acetic, 28% 400 lb bbls c-1 wks.	1.00	: 1.00
Glacial bbls c-1 wks.	3.35	: 3.35
Benzole, tech., 100 lb bbls. ....	.57	: .60
Boric crys., powd., 250 lb bbls. ....	.08 1/2	: .11
Carbolic 10% 50 gal bbls. ....	.25	: .28
Chlorosulfonic 1500 lb drs wks. ....	.15	: .16
Chromotropic, 300 lb bbls.	1.00	: 1.00
Citric, USP, cryst 230 lb bbls. ....	.44	: .55
Citric's 250 lb bbls. ....	.95	: .97
Cresylic, 85% dark drs NY gal. ....	.65	: .67
97-99% pale NY ....	.70	: .72
Formic, 85% tech., 140 cys. ....	.11	: .12
Gamma, 225 lb bbls wks.	1.00	: 1.00
H 225 lb bbls wks. ....	.87	: .63
Hydrobromic, 48% com'l 155 lb cys. wks. ....	.45	: .48
Hydrocyanic wks c-1 ....	.80	: .90
HYDROFLUORIC, 30% 400 lb bbls wks. ....	.06	: .06
Hydrofluosilicic, 35% 450 lb bbls wks. ....	.11	: .11
LACTIC, 22% dark 500 lb bbls. ....	.05 1/2	: .06
44% light bbls. ....	.13	: .13 1/2
Laurent's 250 lb bbls. ....	.52	: .54
Metanilic 250 lb bbls. ....	.60	: .65
Mixed, Sulfuric-nitric		
Drums, wks. ....	.07 1/2	: .08
Drums, wks. ....	.01	: .01 1/2
Monosulfuric FDelta 50 lb bbls. ....	.85	: .85
MURIATIC, 20% cys. wks 100 lb.	1.70	: 1.80
18° 120 lb cys c-1 wks 100 lb.	1.35	: 1.35
Naphthionic tech., 250 lb bbls. ....	.55	: .59
N & W 250 lb bbls. ....	.95	: .99
NITRIC 38° 135 lb cys.	5.00	: 5.00
40° cys c-1 wks.	6.00	: 6.00
Oxalic, 300 lb bbls wks N Y. ....	.11	: .11 1/2
Phosphoric, 50% 150 lb cys. ....	.08	: .08 1/2
Syrupy USP, 70 lb drums. ....	.18	: .18
Picramic, 300 lb bbls. ....	.86	: .86
Pyrrollic tech 200 lb bbls. ....	.27	: .32
Sulfanilic tech., 125 lb bbls. ....	.15	: .16
Sulfanilic, 250 lb bbls.	1.60	: 1.95
SULFURIC, 66° 180 lb cys.	1.60	: 1.95
1500 lb drums wks 100 lb.	1.10	: 1.10
60° 1500 lb drums wks 100 lb.	1.10	: 1.10
Oleum 20 pc 1500 lb drums.	1.50	: 1.50
1c-1 wks.	42.00	: 42.00
Oleum 40% drs 1c-1 wks 100 lb. ....	.30	: .40
Tannic, tech., 300 lb bbls. ....	.36 1/2	: .37
Tartaric, USP, cryst powd 300 lb bbls. ....	.85	: .85
Tobias, 250 lb bbls. ....	.20	: .21
ALCOHOL, Butyl Normal 50 gal drs wks c-1 wks. ....	.20 1/2	: .21 1/2
Drums 1c-1 wks. ....	.19 1/2	: .20 1/2
Tank cars wks.	1.70	: 1.90
Diacetone, 50 gal drs del.	3.70	: 3.70
Ethyl USP190pf 50 gal bbls. ....	.50	: .55
Anhydrous, drums. ....	.50	: .55
Ethyl, Denatured		
No. 1 Complete denat 190pf 50 gal drums extra gal. ....	.52	: .52
No. 5 Complete denat 185pf 50 gal drums extra gal. ....	.50	: .50
Tank cars. ....	.46	: .46

Chemicals

Acetone—A very heavy demand both for export and domestic consumption continues to feature the market. The price is very firm at 12c lb.

Acid Acetic—Activity in the textile industry continues to provide this market with a strong demand. Soundness in price prevails at the current levels of \$3.38 100 lbs. for 28° material. Glacial acid is also strong at \$11.92 100 lbs. in carloads but the demand, while good, does not compare with the call for the liquid acid.

Acid Citric—The market brightened somewhat last week, but it is still dull and although prices are held at 44c@45c lb., it is believed that lower prices may be done.

Acid Cresylic—This market is still strong and prices are unchanged. The dark material remains at 65c@67c lb. and pale is offered at 70c@72c lb. Imports are of larger quantity now and a revision in price might result. The present high figures were caused by further consuming operations abroad.

Acid H—This market continues quiet with contract deliveries of regular size and price in a firm position at 57c@63c lb. Current spot business is of negligible amounts.

Acid Muriatic—Activity in the market is confined to regular routine business of average amounts. The prevailing prices are held in all directions at \$1.70@\$1.80 100 lbs. for 100° acid in carboys and \$1.35 for 18° material in carload quantities for carboys.

Acid Oxalic—The demand continues brisk and producers are operating on a capacity basis. Material is none too plentiful and prices are outstanding with firmness at 11c@11 1/2c lb.

Acid Tartaric—The market remains quiet and a minimum amount of trading has been seen. Import-

Alcohol Isopropyl Butyl Tartrate

ALCOHOL		
Isopropyl, refined gal drs.	1.00	: 1.25
Propyl nml., 50 gal drs.	1.00	: 1.00
Aldehyde Ammonia, 100 gal drums. ....	.80	: .82
Alpha-Naphthol crude 300 lb bbls. ....	.35	: .37
Alpha-Naphthylamine, 350 lb bbls.	3.15	: 3.50
ALUM, Ammonia, lump, 400 lb bbls.	5.25	: 5.50
le-1	3.50	: 3.75
Chrome, 500 lb cys wks.	5.25	: 5.50
Potash, lump, 400 lb wks 100 lb.	5.25	: 5.50
Chrome, 500 lb cys wks 100 lb.	5.25	: 5.50
Soda Grd., 400 lb bbls wks 100 lb.	5.25	: 5.50
Aluminum metal, c-1 NY.	26.00	: 26.00
Chloride, anhyd 275 lb drs. ....	.35	: .40
Hydrate 96% light 90 lb bbls. ....	.17	: .18
Succinate, 100 lb bbls. ....	.23	: .24
SULFATE, Iron-free bags c-1 wks.	1.75	: 1.75
Com'l bags c-1 wks 100 lb.	1.35	: 1.40
Aminoazobenzene, 110 lb kegs. ....	.11	: .12 1/2
AMMONIA, anhyd, 100 lb. ....	.11	: .12 1/2
Water, 36° 800 lb drs del. ....	.21	: .03
Bifluoride, 300 lb bbls. ....	.21	: .03
Carb. tech., 500 lb cases. ....	.08 1/2	: .09
Chloride White bbls wks 100 lb.	5.05	: 5.25
Gray, 250 bbls wks. ....	.05 1/2	: .05 1/2
Lump, 500 lb cases spot. ....	.11	: .11 1/2
Lactate, 500 lb bbls. ....	.15	: .16
Persulfate, 112 kegs. ....	.27 1/2	: .30
Phosphate Tech., powd 325 lb bbls. ....	.18	: .18
Sulfate, bulk c-1	2.35	: 2.40
Southern points	2.35	: 2.35
Amyl-Acetate, tech., 50 gal drs gal.	1.90	: 2.00
Alcohol, see Fuel Oil		
ANILINE OIL, 960 lb drums. ....	.15 1/2	: .16
Anthraquinone, sub 125 lb bbls. ....	.90	: 1.00
Antimony metal slabs tons lots. ....	.11 1/2	: .11 1/2
Needle powd 100 lb cs. ....	.15 1/2	: .16
Oxide, 500 bbls. ....	.16 1/2	: .17
Arsenic Red, 224 kegs cases. ....	.10 1/2	: .11
White 112 lb kegs. ....	.04	: .04
BARIUM Carbonate 200 lb bbls wks 100 lb.	47.50	: 50.00
Chlorate, 112 lb kegs NY. ....	.12	: .12 1/2
Chloride, 800 lb bbl wks.	59.50	: 63.00
Dioxide, 88% 690 lb drs. ....	.13	: .13 1/2
Hydrate, 500 lb bbls. ....	.04 1/2	: .04 1/2
Nitrate, 700 lb cys. ....	.07 1/2	: .08
Barytes, floated 350 lb bbls.	23.00	: 24.00
wks. ....	.65	: .70
Benzaldehyde tech. 945 lb drs wks 100 lb. ....	.22	: .23
BENZENE		
Comm. 90% 8,000 gal tks wks gal. ....	.22	: .24
Commercially pure tks wks gal. ....	.70	: .74
Benzidine Base, dry 250 lb bbls.	1.00	: 1.00
Benzoyl Chloride 500 drs. ....	.24	: .24
BETA-NAPHTHOL 250 lb bbls wks. ....	.63	: .65
Beta-Naphthylamine tech 200 lb bbls. ....	.63	: .65
Sublimed, 200 lb bbls. ....	.135	: .135
Bianc Fixe, 400 lb bbls wks ton.	80.00	: 90.00
BLEACHING POWDER, 700 lb drs c-1 wks contract.	2.00	: 2.25
300 lb drs c-1 wks contract 100 lb.	2.25	: 2.25
Blues, bronze Chinese, Millor		
Prussian Soluble ....	.23	: .30
Bone Ash, 100 lb kegs. ....	.06	: .07
Black, 200 lb bbls. ....	.03 1/2	: .03 1/2
Borax, crys., 500 lb bbls. ....	.04 1/2	: .05
Bordeaux Mixture, 16% pd. ....	.11	: .12
Paste, bbls. ....	.08	: .10
Butyl Acetate normal tk drs wks gal.	1.55	: 1.60
Drums 1c-1 wks.	1.60	: 1.60
Secondary 50 gal drums.	1.00	: 1.05
Aldehyde 50 gal drs wks.70	: .70
Propionate, drs.34	: .36

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For Paint
Plating &
Agriculture

Copper Carbonate

Pure
Precipitated
in 400 lb. barrels

Makes an excellent light green paint, with good body and covering power.
For Platers, yields the maximum plate per pound and more plate per hour.
In Flag Smut of Wheat and Loose Smut of Oats increases stand and saves losses.

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ALUMINUM CHLORIDE

(Sublimed Anhydrous)

Sulphur Black
Anthraquinone
Beta Methyl Anthraquinone
Aluminum Chloride (Anhydrous)
Dyestuffs
Soda Hyposulphite

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Attractive Prices

E.C. KLIPSTEIN & SONS CO.
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Calcium Acetate Ferrous Chloride

Stearate 50gal drs.60	
Tartrate drs.57	.69
CALCIUM Acetate 150 lb bgs c-l		
100 lb.	8.50	
Arsenate, 100 lb bbls c-l wks	.07 1/2	.08
Carbonate, tech 100 lb bgs c-l	1.00	1.10
CALCIUM Chloride solid 650 lb drs		
c-l f.o.b. wks	21.00	23.00
Flake, 375 lb drs c-l wks ton	27.00	
Nitrate, 220 lb bbls c-l NY ton	52.00	
CALCIUM, Phos., tech 450 lb bbls	.09	.10
CAMPOR, Amer ref. 250 lb bbls	.62	
Jap., ref slabs 100 lb cs ....	.60	.63
Carbon Bisulfide 500 lb dr lcl NY		
D. ....	.05 1/2	.06
Carbon Black 100-300 lb cs		
lc-l ....	.12	
Decolorizing 40 lb bgs c-l D.	.08	.15
Carbon Dioxide, Liquid 20-25 cy D.	.06	
Tetrachloride, 14000 lb drs del D.	.07	.07 1/2
Caesin, Standard ground ....	.17 1/2	.17 1/2
Cellulose Acetate, 50 lb kegs	1.40	
Chalk, drop 175 lb bbls ....	.03	.03
Precip., light 250 lb bbls ....	.04 1/2	.04 1/2
Precip., heavy 560 lb cks ....	.02 1/2	.03 1/2
CHLORINE, Liquid tank or multi-		
Carlots cyl wks contract D.	.08	.09
lc-l cyl wks contract D.	.08	.09
Chlorobenzene, mono, 100 lb drs		
wks lc-l ....	.07	
CHLOROFORM, Technical 1,000 lb		
drums ....	.20	.22
Chromium Acetate 20° sol'n 400 lb		
bbls ....	.05 1/2	.05 1/2
Fluoride, Powd., 400 lb bbls	.27	.28
Oxide, Green bbls ....	.34 1/2	.35 1/2
Chrome Green, CP ....	.26	.29
Comm. ....	.06 1/2	.11
Chrome Yellow ....	.16 1/2	.17
Clay c-l Bulk, Del.	18.00	18.00
COPPER, metal electrolyte 100 lb	12.90	13.00
Carbonate 400 lb bbls ....	.16 1/2	.17 1/2
Chloride 250 lb bbls ....	.28	.28
Cyanide 100 lb drs ....	.48	.50
Oxide, red 100 lb bbls tons D.	.16 1/2	.17
Sub-acetate verd 440 lb bbls D.	.18	.19
SULFATE, Carlots, bbls wks 100 lb		5.00
CUPRASE bulk, crystal and sugar		
c-l wks	13.00	
Sugar, 100 lb bbls	1.25	1.35
Cotton Soluble 100 lb wet ....	.40	.42
CREAM TARTAR, USP, 300 lb		
bbls ....	.26 1/2	.28
Cresote USP 42 lb cys ....	.40	.42
Cresote Oil Natural 50 gal drs ....	.20	.21
10-15% Tar Acid ....	.25	.26
25-30% Tar Acid ....	.28	.29
DIAMINOPHENOL, 100 lb kegs D.		3.80
Diamyl Phthalate drums, wks	2.95	2.97
Dianiline, 100 lb kegs	3.25	3.35
Dibutyl Phthalate wks	2.60	2.70
Dibutyl Tartrate, 50 gal drums D.	.55	.65
Dichloromethane drums, wks ....	.23	.25
Diethylamine, 400 lb drs	2.15	
Diethylaniline, 850 lb drs ....	.55	.60
Diethyl Carbonate, drums	1.85	2.00
Diethyl Phthalate 1,000 drums D.	.25	.28
Diethyl Sulfate tech., 50 gal drs lb.	.30	.35
Dimethylamine, 400 lb drs	2.60	
Dimethylaniline 340 lb drs wks D.	.30	.34
Dimethylsulfate, 100 lb drs ....	.45	.50
Dinitrobenzene, 400 lb bbls ....	.15 1/2	.16 1/2
Dinitrochlorobenzene, 400 lb bbls D.	.15	.16
Dinitrochlorine, 300 lb bbls ....	.18	.19
Dinitronaphthalene, 350 lb bbls D.	.32	.34
Dinitrophenol, 350 lb bbls ....	.31	.32
Dinitrotoluene, 300 lb bbls ....	.18	.19
Diothotolylguanidine, 275 lb		
bbls wks ....	.85	.90
Diphenylamine ....	.45	.47
Diphenylguanidine 100 lb bbls D.	.68	.72
EPSOM SALT, tech., 300 lb bbls		
c-l NY	1.75	
Ethyl Acetate, 99% 50 gal drs gal.	1.10	
85% Ester 110 gal drs ....	.90	
110 gal drs	1.05	1.11
Benzyl Aniline, 300 lb drs D.	.22	
Chloride, 200 lb drs ....	.22	
Lactate drums wks	2.50	
Methyl Ketone, 50 gal drs D.	.30	
Oxalate drums wks ....	.45	.55
Ethylene-Bromide 600 lb drs D.	.70	
Chlorhydrin, anhyd., 50 gal drs D.	.75	.85
Dichloride, 50 gal drs ....	.11	
Glycol 50 gal drums wks ....	.80	.40
Ethylidenaniline ....	.62	.65
Feldspar bulk	30.00	25.00
FERRIC CHLORIDE tech., crys.		
475 lb bbls ....	.07 1/2	.09
Ferrous Chloride cryst tech 475 lb		
bbls ....	.05	.06

Chemicals

ed material is now available at 36 1/4 c @37c lb. and a fair sized order will probably produce even lower quotations. Meanwhile domestic goods have been offered at unchanged prices of 37c@38c lb. and may be reduced shortly.

Alcohol Butyl — Has been favored with a steady demand at full prices and its maker is again repeating prices for this month. The schedule follows:—Tankcars 23 1/2 c @24 1/2 c lb. drum cars 24c@25c lb. and l. c. l. drums 24 1/2 c@25 1/2 c lb. A discount of 4 1/2 c lb. is granted from these prices making the basic price 19 1/4 c lb.

Alcohol Denatured — The fact that C. D. alcohol will not decline during the winter, is now unquestioned. The distillers claim to have approximately 75% of the consuming field sold and anticipate booking the remainder when the cold weather appears. Basic prices for No. 1 and No. 5 are 48c and 46c gallon respectively.

Ammonia — Sales for both anhydrous and aqua have dwindled to conservative amounts but no signs of price weakness have been seen. The former is quoted at 11c@12 1/2 c lb. and the latter remains well held at 3c lb.

Ammonium Chloride — The competitive atmosphere has subsided somewhat recently, leaving the domestic factors in control of the market. Producers are working on a narrow margin of profit and will not be inclined to again reduce prices so the market remains at \$5.05 100 lbs.

Aniline Oil — The continued strength of this market together with the high cost of production has prompted the producers of this material to advance their schedules. Aniline oil in tank cars is now priced at 15c lb. and drums range 15 1/4 c@16c lb. representing an advance of 1c lb.

Barium Chloride — The market for imported has tightened somewhat and \$59.50 ton seem to be the best price. Domestic ranges \$60.00@63.00 ton and the demand for both is steady.

Benzene — Conditions surrounding the market improved somewhat during the week, an added demand was witnessed, but prices are unchanged. The market is placed at 22c gal. in tank cars and is held rather unsteadily.

Copper Sulfate — Market continues strong at \$5.00 100 lbs. in carlots and is not liable to change in the immediate future.

Fluorspar Para-Aminophenol

Fluorspar, 95% 220 lb bags ex-dock	25.00	
FORMALDEHYDE USP, bbls 400 lb		
lc-l wks ....	.08 1/2	.09
Formaldehyde Aniline 100 lb drs D.	.39	.42
Furfural 500 lb drums ....	.17 1/2	
Fusel Oil 10% Impurities drsgal.	1.69	
G SALT paste 360 lb bbls ....	.50	.52
GLAUBER'S SALT, tech., 200 lb bgs		
c-l wks	1.05	1.10
GLYCERIN, CP, 550 lb drums D.	.23	.23 1/2
Dynamite, 100 dr ....	.19	.20
Saponification tanks ....	.14	.15
Soap, Lye tanks ....	.13 1/2	.14
Hexalene, 50 gal drs, wks ....	.60	
Hexamethylenetetramine drs. ....	.62	.65
HYDROGEN PEROXIDE,		
100 vol 140 lb cys ....	.24	.26
IRON Chloride see Ferric or Ferrous		
Nitrate, kegs ....	.09	.10
Com'l bbls	2.50	3.25
Oxide, red Spanish ....	.02 1/2	.03 1/2
English ....	.10	.12
Isopropyl Acetate 50 gal drums gal.	.85	.90
LEAD, Metal c-l NY	6.25	
Acetate, white crystals	13.00	13.50
Arsenate, bbls, lc-l wks ....	.13 1/2	.14
Nitrate, 500 lb bbls wks ....	.14	
Oxide, Litharge 500 lb bbls ....	.08 1/2	.08 1/2
Oxide, red 500 lb wks ....	.09 1/2	.09 1/2
Oxide, bbls ....	.17 1/2	.18
White, 500 lb bbls wks ....	.09	
White sulfate 500 lb bbls wks D.	.08 1/2	
LIME, (Sals, see Calcium Salts)		
Ground Stone, bags	4.50	
Live, 325 lb bbls tons wks 100 lb.	1.05	
Lithopone, 400 lb bbls lc-l wks D.	.08 1/2	
MAGNESITE, calcined, 500 bbls ton.	48.00	50.00
Magnesium Carb., tech., 70 lb bags		
NY ....	.08	.08 1/2
MAGNESIUM, Chloride, flake 575 lb		
dr c-l wks	37.00	
Imp., Flake Shipt.	33.00	
Imp., fused 900 lb bbls NY ton.	31.00	
Fluossilicate cryst 400 lb bbls wks D.	.10	.10 1/2
Oxide, USP, light 100 lb bbls D.	.42	
USP, heavy 250 lb bbls D.	.50	
Stearate bbls ....	.23	.25
Manganese Borate, 30% 200 lb		
bbls ....	.24	
Chloride, 600 lb cks ....	.08	.08 1/2
Sulfate, 550 lb drums NY ....	.07	.07 1/2
MERCURY, metal 75 lb flask, flask	126.00	
Meta-Nitro-aniline ....	.72	.74
Meta-Nitro-para-Toluidine, 200 lb		
bbls	1.70	
Meta-Phenylenediamine, 300 lb		
bbls ....	.90	.94
Meta-Toluylenediamine, 300 lb		
bbls ....	.72	.74
METHANOL (Wood Alcohol) drums		
95% ....	.55	
97% drums, lc-l ....	.57	
Pure drums, lc-l ....	.58	
Synthetic drums, lc-l ....	.58	
U. S. denat. grd., tanks gal.	.75	
Methyl Acetate drums ....	.95	
Methyl Acetone, 100 gal drums gal.	.85	
Chloride, 90 lb cyl ....	.55	.60
Monethylaniline, 900 lb drs	1.05	
Monomethyl paraminophenol sulfate		
100 lb drs	3.95	4.20
NAPHTHALENE, flakes, 175 lb bbls		
wks ....	.05	
Balls, 250 lb wks ....	.06	
Crushed, chipped bgs wks ....	.04 1/2	
NICKEL, Chloride, bbls kegs D.	.21	.24
Oxide, 100 lb kegs NY ....	.35	.38
Salt single 400 lb bbls NY ....	.08 1/2	.09
Double, 400 lb bbls NY lb.	.09	.09 1/2
Nicotine, Free, 40% 8 lb tins cs lb.	1.25	1.30
Nicotine Sulfate 10 lb tins	1.10	
Nitro Cake 500 lb bbls	13.00	14.00
Nitrobenzene, Redistilled 1000 lb drs		
wks ....	.10 1/2	.10 1/2
Nitronaphthalene, 550 lb bbls D.	.25	
Nitrotoluene, mixed 1,000 lb drs		
wks ....	.14	.15
Orange-Mineral, 1100 lb cks NY lb.	.13	.13 1/2
Ortho-Aminophenol, 50 lb kegs D.	2.20	2.25
Ortho-Anisidine, 100 lb drs	2.35	2.50
Ortho-Dichlorobenzene, 1,000 lb	.06	.07
Ortho-Nitrochlorobenzene, 1,200 lb		
dr. wks ....	.32	.35
Ortho-Nitrophenol, 350 lb drs D.	.85	.90
Ortho-Nitrotoluene, 1,000 lb drs		
wks ....	.13	.14
Ortho-Toluidine lc-l 350 lb bbls lb.	1.29	.31
Para-Aminoacetanilid, 100 lb bgs D.	1.00	1.05
Hydrochloride, 100 lb kegs D.	1.25	1.30
Para-Aminophenol, 100 lb kegs D.	1.15	

Pure Phthalic Anhydride



Phthalic Anhydride of the highest purity has been produced by us in commercial quantities for over 9 years and this pure Phthalic Anhydride is well-known to the trade as SELDEN BRAND. Its form is the natural long needle crystal which dissolves and melts much more rapidly than in any other form.

We pack this material in new slack barrels containing 150-lb. net weight of Phthalic Anhydride and these packages are so constructed that their use for re-shipment is a well established fact among our customers.

Our service on Phthalic Anhydride is unexcelled and we are in position to make prompt shipment in carload lots.

Your inquiries will have our prompt attention and we will be pleased to furnish quotations and samples at your request.

THE SELDEN COMPANY
Pittsburgh, Pa., U. S. A.

**Para-Dichlorobenzene
Sodium Acetate**

Para Dichlorobenzene, 150 lb bbls		
wks	.17	.20
Paraldehyde 110-55 gal drs	.26	.28
Para-Cymena Ref d. 110 gal drs gal	2.25	2.50
Para-Nitroacetanilid 300 lb bbls	.50	.55
PARA-NITROANILINE , 300 lb bbls		
wks	.52	.53
Para-Nitrochlorobenzene, 1,200 lb drs		
wks	.32	
Para-Nitro-ortho Toluidine, 300 lb bbls	2.75	2.85
Para-Nitrophenol, 185 lb bbls	.50	.55
Para-Nitrosodimethylaniline, 120 lb bbls	.02	.94
Para-Nitrotoluene, 350 lb bbls	.25	.30
Para-Phenylenediamine 350 lb bbls		1.15
Para-Toluene-Sulfonamide, 175 lb bbls	.40	.41
Para-Toluene-Sulfonchloride, 410 lb bbls	.20	.22
Para-Toluidine, 3 50 lb bbls wks	.40	.45
PARIS GREEN ,		
Arsenic Basis, 500 lb kegs	.19	.20
Kegs, 100 lbs.	.21	.22
PETROLATUM , green 300 lb bbls lb	.02½	.03
Phenol Small drums 250-100 lb	.17	.18
Phenyl-Alpha-Naphthylamine 100 lb kegs		1.35
Phosphorus, red 110 lb cs	.60	.65
Yellow 110 lb cs wks		.32
Phosphorous-Oxychloride 175 lb cyl	.35	.40
Phosphorous Sesquisulfide 100 lb cases		.46
Phthalic, Anhydride, 100 lb bbls	.18	.20
wks		.07½
Potash, Caustic, Imp., c-1, cks		.07½
Domestic, wks		.07½
POTASH SALTS , rough		
Pot. Muriate basis 80% bgs ton		36.40
Pot. Sulfate, basis 90% bgs ton		47.30
Pot. & Mag. Sulfate basis 48% bags		27.00
Manure Salts basis 30% bulk ton		18.75
Manure Salts basis 20% bulk ton		12.40
Kalnit, basis, 12.4% bulk ton		9.00
Kalnit, basis, 14% bulk .ton		9.50
tons 10%		
POTASSIUM Bicarb USP 320 lb bbls	.09	.09½
Bichromate, crys., 725 lb casks	.08½	.08½
Powd., 725 cks wks	.12	.12½
Binoxide, 300 lb bbls	.16	.17
Bisulfate, 100 lb kegs		.30
CARBONATE , 80-85% calc. 800 lb cks	.05½	.05½
Chlorate crys powd 112 lb kegs	.08½	.09
Imp., 112 lb NY	.08½	.08½
Chloride, crys., bbls	.05½	.05½
Chromate, kegs	.27	.28
Cyanide 110 lb cases	.55	.57½
Metabisulfite, 300 lb bbls	.11½	.12
Oxalate, neutral, 225 bbls	.16	.17
PERMANGAN. USP, crys., 500 lb & 100 lb drs wks	.14½	.14½
Prussiate red, 112 lb kegs	.37½	.38
Prussiate, yellow 500 lb casks	.18	.18½
Tartrate, neutral 100 lb kegs		.51
Titanium Oxalate, 200 lb bbls		.25
Pyridine, 50 gal drs	1.50	1.75
R SALT , 250 bbls wks	.45	.46
Salt, Common, see Sodium Chloride		
Salt Cake 94-96% c-1 wks .ton	19.00	20.00
White 87% wks	15.00	17.00
SALTPETRE , Double refined		
Granular, 450-500 lb bbls	.06½	.06½
Satin White, 500 lb bbls		.01½
SILICA		
Crude, bulk, mines	6.00	7.00
Refined, floated bags	15.00	30.00
Air floated bags	32.00	50.00
Extra, floated, bags	55.00	65.00
SODA ASH , 58% light		
bags delivered NY 100 lb	2.14	2.20
Contract, c-1 bgs wks 100 lb		1.32½
58% dense-c-1 bgs wks 100 lb		1.32½
CAUSTIC , 76% solid		
drums del'd NY 100 lb	3.76	3.91
Ground & Flake 76%		
drums del. NY 100 lb	4.16	4.21
Contract c-1 wks		3.00
SODIUM ACETATE , crys 450 lb bbls		
wks	.04½	.05

Chemicals

**Sodium Bicarbonate
Zinc Metal**

Cream of Tartar — The market is weaker and 26½c lb. is offered for imported with domestic ¼c lb. higher. This market is also responsible for the shading, which might result in a revision in domestic prices.

Dimethylaniline — Has been advanced owing to the high costs of aniline. Prices for drums now range 30c@34c lb.

Glycerin — Remains weak and even to-day's prices do not attract the consumers. Chemically pure is 23c@23½c lb. and dynamite may be bought at 19c@20c lb.

Mercury — Was advanced this week to \$126.00 flask and is exceedingly strong. This move is a result of the disposal of the Spanish production at a high price and no reductions are foreseen for some time.

Naphthalene — The spot market has been advanced to 5c lb. for flakes and 6c lb. for balls but there is practically no business being done. No future business is being done and future prices will probably be announced next week and it is rumored that they will be higher, probably at an equal level to current spot prices.

Nitrobenzene — Higher owing to the advance in aniline and current quotations are placed at 10¼c@10½c lb.

Para-Toluidine — Is firmer at 40c@45c lb. with business of good size and sufficient to withdraw lower quotations which had been heard.

R Salt — This market is also strong and featured with a fair amount of business at 45c@46c lb.

Sodium Sulfide — All grades of this material are in a favored position and an added amount of interest has been seen over the past month. It is not likely that the market will weaken.

Vermillion — The market is currently placed at \$1.95 lb. and while the advance in mercury should affect it further, a material rise would cause consumers to use a cheaper color.

Zinc — Metal is lower but no change has been made in its derivatives as yet.

OILS AND FATS

Castor Oil — Prices show no change over the past month, No. 1 still being quoted at 13c lb. and No. 3 at 12½c lb.

Chinawood Oil — A sharp decline has featured the market this week so that some factors expect

SODIUM (Cont.)

Bicarbonate 400 lb bbls NY100 lb		2.41
Bichromate, 500 lb casks wks	.06½	.06½
Bisulfite, 500 lb bbls bbls wks		.08½
Carbonate 350 lb bbls NY 100 lb	1.30	1.35
Chloride, tech	12.00	13.00
Chlorate, 112 lb kgs wks	.06½	.06½
Cyanide 96-98% 100 & 250 lb drums wks		.20
Fluoride, 300 lb bbls wks	.08½	.09
Hypochlorate Soln 100 lb cys		.05
Hydrosulfite 200 lb bbls fob wks	.22	.24
HYPOSULFITE , tech., pea crys 375 lb bbls, wks 100 lb	2.65	3.05
Regular crys., bbls wks 100 lb	2.40	2.65
Metanilate, 150 lb bbls		.45
Naphthionate, 300 lb bbls	.55	.57
Nitrate crude, 95% 200 lb bgs		
c-1 NY	2.40	2.45
Nov. Shipment		2.37½
Nitrate, 500 lb bbls spot mks	.08	.08½
Ortho-Chloro-Toluene Sulfonate 175 lb bbls wks	.25	.27
Oxalate, neutral, 100 lb kegs	.20	.23
Perborate, 275 lb bbls	.21	.22
Phosphate, di-sodium tech 550 lb bbls	3.25	3.55
Para-Toluene Sulfonate 175 lb bbls	.08	.09
Tri-sodium tech-bbls 100 lb		.390
PRUSSIAE , yellow 350 lb bbls wks	.12	.12½
Pyrophosphate 100 lb kegs	.13½	.14
Silicate, 40° turbid, 55 gal drums wks	.85	1.10
40° clear drs wks 100 lb	1.20	1.45
Silicofluoride 450 lb bbls NY	.04½	.05
Stannate, 100 lb drums	.48½	.49
Sulfanilate 400 lb bbls	.16	.18
Sulfate Anhydrous 550 lb bbls c-1 wks	.02½	.02½
Sulfide, 60% solid, 650 lb drs	.03½	.04
lc-1 wks	.02½	.02½
30% crys 440 lb bbls wks	.03½	.03½
Sulfite, crys 400 lb bbls wks		.03½
SOLVENT NAPHTHA , 110 gal drs wks	.35	.40
STRONTIUM , Carbonate, 600 lb bbls wks	.07½	.07½
Nitrate, 600 lb bbls NY	.08	.08½
SULPHUR Crude, fob mines .ton	18.00	19.00
Brimstone Broken Rock 250 lb bgs c-1		2.05
Roll, 1 c-1 bbls NY 100 lb	2.65	2.85
Flour, Heavy bgs c-1		2.50
For Dusting c-1 99½% 100 lb bags NY		2.40
Flowers 100% 155 lb bbls NY c-1		3.45
Sulfur Chloride, red, 700 lb drs wks	.05	.05½
Yellow, 700 lb drs wks	.03½	.04½
Sulfur Dioxide, 150 lb cyl	.08	.08½
Extra Dry, 100 lb cyl	.17	.19
Sulfuryl Chloride, 600 lb drs	.85	.70
Tar Coke Oven, Tks., wks	.07	.08
Tetralene, 50 gal drs wks		.20
Thiocarbamilid, 170 lb bbls	.22	.24
TIN , metal Strait, NY		.59
Bichloride, 50% sol'n 100 lb bbls wks		.17½
Crystals, 500 lb bbls wks	.42	.42½
Oxide, 300 lb bbls wks		.75
Tetrachloride, 100 lb drs wks		.36
Titanium Oxide 200 lb bbls		.40
Pigment, bbls wks	.13½	.14
Toluidine, 350 lb bbls	.90	.94
Toluene, 8,000 gal tnk cars wks gal		.35
110 gal drs wks		.40
Toluidine, Mixed, 900 lb drs wks	.31	.32
Toner Lithol Red bbls	.85	.90
Para Red bbls	.75	.80
Toluidine	1.75	1.80
Triacetin, 50 gal drs wks	3.60	3.90
Triphenylguanidine	.69	.73
Urea Pure, 112 lb cases	.18	.20
Vermillion English kegs		1.95
XYLENE , 10° tanks wks		.38
Com'l tanks wks		.36
Xylidine crude		.35
ZINC METAL , high grade slabs c-1 NY		6.40



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Solvay Benzaldehyde
Solvay Caustic Potash Liquor 45%
Solvay Calcium Chloride 73%-75%
Solvay Ammonium Chloride
Solvay Ammonium Bicarbonate
Solvay Paradichlorobenzene
Solvay Sodium Nitrite
Solvay 58% Soda Ash
Dense—Light
Solvay Fluf (Extra Light Soda Ash)
Solvay 76% Caustic Soda
Solid—Flake—Ground
Solvay Super Alkali
Solvay Snowflake Crystals
(Trademark Registered)
Solvay Laundry Soda
Solvay Cleansing Soda
Solvay Tanners Alkali
Solvay Tanners Soda
Solvay Liquid Caustic Soda

Solvay Sales Corporation



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Philadelphia

Kansas City

St. Louis

Atlanta

Zinc Ammonium Chloride Soya Bean Oil

Oils & Fats

Sperm Oil Glue

ZINC Amm Chloride, pwd 400 lb	...	.08%
bbls	...	.10
Carb. tech., bbls NY	...	.08
Chloride, fused 600lb drs wks lb	...	.08%
Granulated, 500 lb bbls wks lb	...	.08%
Solution 50% tanks wks 100lb	...	3.00
Cyanide, 100lb drs	...	.40
Dust, 500lb bbls c-1 wks	...	.09
Oxide, Amer., bags wks	...	.07%
French, 300lb bbls wks	...	.10%
Sulfate, 400 lb bbls wks	...	.03%
Sulfide, 500 lb bbls	...	.30
Sulfocarbonate, 100lb kegs	...	.29

Oils & Fats

Castor, No. 1, 400lb bbls	...	.13	...	.13%
No. 3	...	.12%	...	.13
Blown, 400lb bbls	...	...	...	.18
China Wood bbls spot NY	...	.15%	...	.15%
Tanks, Spot NY	...	...	...	nom.
Coast tanks—Oct.	...	.12%	...	.13
Coconut Ceylon 375lb bbls NY	...	.09%	...	.09%
8,000 gal tanks NY	...	.08%	...	.09
Cochin, 375lb bbls NY	...	.10	...	10%
Tanks, NY	...	...	...	.09%
Manila bbls NY	...	.09%	...	.09%
Tanks NY	...	.08%	...	.08%
Tanks Pacific Coast	...	.08%	...	.08%
Edible bbls NY	...	.12	...	.12%
Cod Newfoundland, 50gal bbls gal	...	.63	...	.63
Tanks, NY	...	.50	...	.61
Cod Liver, see Cod Liver Oil under Chemicals	...	.06	...	.06%
Copra, bags	...	.12	...	.12%
Corn, ref. 375lb bbls NY	...	.11	...	.11%
Tanks	...	.10	...	.10
Crude tanks mills	...	.09%	...	.09%
Bbls NY	...	.11	...	.11%
Cottonseed Crude mill	...	.09%	...	.10
PSY 100 bbls spot	...	...	...	.11%
Oct-Jan	...	.11%	...	.11%
White, 100 bbls lots NY	...	.11%	...	.11%
Degras, Amer., 50gal bbls NY	...	.04%	...	.04%
English light bbls NY	...	.05%	...	.05%
Brown, bbls NY	...	.04%	...	.04%
Greases choice white bbls NY	...	.10	...	.10%
Yellow	...	.07%	...	.07%
Brown	...	.07	...	.07
LARD OIL, edible prime	...	.16	...	.16
Off prime bbls	...	.12%	...	.12%
Extra bbls	...	.11%	...	.11%
Extra No. 1 bbls	...	.11%	...	.11%
LINSEED, raw c-1 bbls spot	...	10.1	...	10.1
Five bbls raw	...	10.7	...	10.7
Tanks, raw	...	9.3	...	9.3
Menhaden tanks Balt	...	.45	...	.45
Light pressed, bbls NY	...	.63	...	.64
Yellow pressed, bbls NY	...	.66	...	.67
Blown bbls NY	...	...	...	.60
Extra bleached bbls NY	...	.67	...	.68
Mineral Oil, white, 50 gal bbls gal	...	.80	...	.90
Russian gal	...	.95	...	1.00
Neatfoot 20 deg. ct., bbls NY	...	.18	...	.18
Pure bbls NY	...	.15%	...	.15%
CP bbls NY	...	.17%	...	.17%
Extra bbls NY	...	.11%	...	.11%
Oleo Oil, No. 1 bbls NY	...	.15	...	.15
No. 2 bbls NY	...	.12%	...	.12%
No. 3 bbls NY	...	1.60	...	1.70
OLIVE, denatured bbls NY	...	1.60	...	1.70
Edible, bbls NY	...	2.15	...	2.15
Foots bbls NY	...	.10%	...	.10%
Palm Lagos, 1,500 lb casks	...	.07%	...	.08
Niger casks	...	.07%	...	.07%
Palm Kernel Casks	...	.09	...	.09%
Peanut refined bbls NY	...	.15%	...	.16
Crude, bbls NY	...	.12	...	.12%
Perilla, bbls NY	...	.14%	...	.15
Tanks Coast	...	...	...	nom.
Poppyseed bbls NY	...	1.70	...	1.75
Rapeseed bbls NY Japanese	...	.84	...	.86
English	...	.83	...	.90
Blown bbls NY	...	1.02	...	1.04
Red Oil, distilled bbls	...	.09	...	.09%
Tanks	...	.09%	...	.10%
Tanks	...	...	...	.08%
Salmon, 8,000 gal the Coast	...	.50	...	nom.
Sardine, Tanks Pacific Coast gal	...	...	...	.45
Sesame edible yellow bbls	...	.12%	...	.13%
White	...	.14	...	.15
Sod Oil, bbls NY	...	...	...	.40
SOYA BEAN, crude the Pac Cat	...	.09%	...	.09%
Crude, the NY	...	.10%	...	.10%
Crude, bbls NY	...	.12	...	.12%
Refined bbls NY	...	...	...	.13

an active reaction, although it is possible that this is a movement towards more normal levels. The spot market is down to 15½c lb. @ 15½c lb. while sales on the Coast are reported at 12¾c@13c lb.

Coconut Oil—The Coast market for Manila remains unchanged at 8¼c@8¾c lb. while the spot market has declined ½c. The spot price on Ceylon has advanced ½c, but the Coast price remains unchanged.

Corn Oil—Shows a further advance this week, tanks of crude oil at the mills being quoted at 9¾c@10c lb. and spot at 11c@11½c lb.

Cottonseed Oil—The firm position continues practically unchanged. Although on Saturday last the quotation on spot was 11¼c lb., a drop of ¼c from the previous week, crude oil at the mills showed a corresponding rise, being quoted at 9¾c@10c lb.

Greases—All grades continue very strong but with no change in price, choice white being quoted at 10c lb.; yellow at 7½c lb. and brown at 7c lb.

Lard Oil—Prices continue unchanged at 12¾c for off prime; 11¾c for extra and 11½c for extra No. 1.

Linseed Oil—The market has been very quiet again this week with spot continuing at 10.1c lb. Raw oil in tanks is firm at 9.3c lb. but the five barrel price has declined slightly and is now quoted at 10.7.

Oleo Oil—A rapid advance has been made in all grades during the past week, No. 1 now being quoted at 17¼c lb., an advance of three cents; No. 2 at 15c lb.; and No. 3 at 12½c lb.

Olive Oil—Foots continue strong but with no change in price, still being quoted at 10¼c@10½c lb. Denatured oil is quiet at \$1.60@\$1.70 gal. and edible oil steady at quoted levels.

Rapeseed Oil—On a noticeable improvement in demand the price of both English and blown advanced this week, the former 3c and the latter 2c, now being quoted at 88c@90c gal. and \$1.02@\$1.04 respectively. Simultaneously, Japanese declined 1c, now being quoted at 84c@86c gal.

Tallow—Edible continues strong with no advance over the 10½c lb. price of last week while extra loose has advanced slightly, now being quoted at 8½c lb.

Albumen—Egg albumen prices were reduced last week to 83c@87c lb. for edible and 78c@83c lb. for technical. An easiness in the pri-

Sperm 38° ct., blehd, bbls NY gal	.84	...	.85
45° cold test blehd bbls NY gal	.79	...	.80

STEARIC ACID			
Double pressed, bags dist	...	.11%	...
Double pressed, bags saponified	...	.11%	...
Carlota	...	.11	...
Triple pressed bags dist	...	.13%	...
Carlota	...	.13	...
Stearine Oleo bbls	...	.13	...
Tallow edible tierces	...	.10%	...
City, Extra loose	...	.08%	...
Tallow Oil, acidless tks NY	...	.10	...
Bbls c-1 NY	...	.11%	...
Whale, nat winter bbls NY	...	.76	...
Blehd, winter bbls NY	...	.78	...
Extra blehd bbls NY	...	.80	...
Turkey Red, Oil, single bbls	...	.11	...
Double	...	.14	...

Industrial Raw Materials

Albumen, egg edible	...	.83	...	.87
Tech., 100 lb drs	...	.78	...	.83
Blood, 225 bbls	...	.45	...	.55
Vegetable edible	...	.60	...	.65
Technical	...	.50	...	.55
Annatto, fine	...	.41	...	.48
Archil, double 600 bbls	...	.13	...	.14
Triple, 600lb bbls	...	.14	...	.15
Cone, 600 lb bbls	...	.18	...	.20
Asbestine c-1 wks	...	...	...	14.75
Bees Wax, white cases	...	.57	...	.58
Yellow, refined cases	...	.41	...	.42
Crude, bags	...	.38	...	.39
Blood dried fob NY	...	4.75	...	4.80
Chicago	...	4.75	...	4.90
S Am Shipment	...	4.75	...	4.80
Bone Raw Chicago	...	29.00	...	30.00
Bone Meal, 3 & 50 imp	...	30.00	...	37.00
Bone Ash 100lb kegs	...	.06	...	.07
Black 200lb bbls	...	...	...	.08%
Candelilla Wax, bags	...	.27	...	.28
Carnauba Wax Flor bags	...	.50	...	nom.
No. 1 Yellow, bags	...	.60	...	.62
No. 2, regular bags	...	.55	...	.56
No. 2, N. Country bags	...	.36	...	.38
CHARCOAL				
Hardwood, lump, bulk wks	...	.18	...	.19
Wood, powd., 100lb bbls	...	.04	...	.05
Willow, powd 100lb wks bbls	...	.06	...	.06%
Chestnut clarified 25% tks wks	...	.02	...	.02%
Bbls, wks	...	.03	...	.03%
Powd., 60% 100lb bags wks	...	.05%	...	.05%
Decolorized bags wks	...	.06%	...	.07
Cudbear, English	...	.16	...	.17
Cutch Bangoon, 100 lb bales	...	...	...	.18%
Tablets, 120 lb boxes	...	.13	...	.14
Borneo solid, 100lb bales	...	.05%	...	.05%
Cyanamide, bulk, c-1 wks Amm unit	...	...	...	1.67%
Dextrin, white corn 140lb bags	...	...	...	3.72
c-1	...	...	...	100lb
Canary	...	...	...	3.77
Potato, white 220lb bags 1c-1 lb	...	...	...	.08%
Yellow, 220 lb bags	...	...	...	.08%
Tapioca, 200 bags 1c 1 lb	...	.08	...	.08%
Divi Divi Extrat	...	.04	...	nom.
Pods, bags ship	...	48.00	...	50.00
Egg Yolk, 200 lb cs	...	.72	...	.75
Ester Gums Dark, 280lb bbls	...	.13%	...	.14
Light 280 bbls	...	.14	...	.14%
Fish Scrap, dried wks	...	5.25	...	& 10
Acid Bulk 7 & 3½ Deliv	...	...	...	nom.
Norfolk & Balt basis	...	...	...	nom.
Flavine Lemon 55 lb cs	...	1.10	...	1.15
Orange 70lb cs	...	.85	...	.90
Fossil Flour	...	.02%	...	.04
Fustic, solid 50lb boxes	...	.20	...	.23
Crystals, 100 boxes	...	.20	...	.22
Liquid 51° 600lb bbls	...	.09	...	.10
Fustic, sticks	...	80.00	...	32.00
Chips	...	.04	...	.05
Gall extract	...	.20	...	.21
Gambler 25% liq., 450lb bbls	...	.12	...	.14
Common 200lb cases	...	.06	...	.08
Singapore, cubes, 150lb bags	...	.12	...	.15
Gelatin Technical 100lb cs	...	.45	...	.50
bags c-1 NY	...	3.14	...	3.24
Glucose (Grape Sugar) dry 70°	...	...	...	...
80° bags c-1 NY	...	3.24	...	3.34
Tanners' Spel 100 lbs 100lb	3.14
GLUE, pure white bbls2226
Medium white, bbls2024

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CHICAGO - CLEVELAND



Gums
Oak Bark

Industrial Raw Materials

Osage Orange
Whiting

GUM, Accroides, Red, coarse and fine, 140-150 lb bags.....	.03%	.04%
Powdered, 150 lb bags.....	.06	.06½
Accroides, Yel. 150-200 lb bags.....	.18	.20
Animi (Zanzibar) Bean and pea 250 lb cases.....	.35	.40
Glassy, 250 lb cases.....	.50	.55
Asphaltum, Baradoes, Manjak 200 lb bags.....	.09	.12
Egyptian, 200 lb cases.....	.15	.17
Gilsonite selects 150 lb bags ton	55.00	60.00
Benzoin, Sumatra, Tech., 120 lb cases.....	.30	.32
Copal, Congo, 112 lb bags		
Water White,.....	.35	.36
Light Amber,.....	.12½	.14
Dark Amber,.....	.08½	.09
Clean Opague,.....	.14	.15
Copal, East Indian 224 lb cases 180 lb bags—		
Pale, E. I. Bold,.....	.17	.17½
Pale, E. I. Chips,.....	.07½	.08
180 lb bags—		
Copal, Manila, 180-190 lb Baskets—		
Pale Bold, Loba A.,.....	.16	.16½
Pale Bold, Nubs, Loba B.,.....	.15	.15½
Pale, Bold, Loba C.,.....	.13	.13½
Pale Nubs, P. N.,.....	.12	.12½
Pale Bold, 224 lb cases,.....	.16	.18
Copal, Pontinak, 24 lb cases—		
Pale, Bold genuine No. 1 lb,.....	.25	.25½
Pale, genuine spot chips lb,.....	.13	.14½
Damar Batavia standard 136 lb cases.....	.24½	.25
Batavia E Seeds 13 6 lb cs lb......	.18	.18½
Batavia F Splinters 136 lb Cases and bags.....	.14	.14½
Batavia, Dust, 160 lb bags, lb.....	.10½	.11½
Singapore No. 1 224 lb cs, lb.....	.32½	.33
Singapore No. 2, 224 lb cs, lb.....	.22½	.22½
Singapore No. 3, 180 lb bags lb......	.14	.15
Elemi, No. 1, 80-85 lb cs, lb......	.14	.15
No. 2, 80-85 lb cases, lb......	.13	.14
No. 3, 80-85 lb cases, lb......	.12	.13
Kauri No. 1, 224-226 lb cs, lb.....	.60	.61
No. 2, fair pale 224-226 lb cases.....	.38	.40
Bush Chips 224-226 lb cases.....	.38	.40
Pale Chips 224-226 lb cases lb.....	.24½	.26
Brown Chips 180-200 lb bags lb.....	.10	.12
Sandarac Prime quality 220 lb bags and 300 lb casks, lb.....	.25	.26
Graphite crude 220 lb bags, ton	15.00	35.00
Flake, 500 lb bbls, lb.....	.05	.09
HEMATINE, Paste, 500 lb bbls lb.....	.09	.12
Crystals, 400 lb bbls, lb.....	.12	.20
Hemlock, 25% 600 lb bbls wks, lb.....	.03½	.03%
Bark,.....	16.00	
Hypernie, 51° 600 lb bbls, lb.....	.12	.15
Indigo Madras bbls, lb	1.28	1.30
20% paste drums, lb.....	.14	.15
Solid powd, lb.....	.07½	.08
Japan Wax 224 lb cs, lb.....	.17	.18
KIESELGUHR, 95 lb bgs NY, ton	60.00	70.00
Larch 25% 600 lb bbls wks, lb.....	.03%	.04
Powd. 100 lb bags wks, lb.....	.08	.09
Logwood 51° 600 lb bbls, lb.....	.08½	.08½
Lower grades,.....	.07½	.08
Solid, 50 lb boxes, lb.....	.12	.15
LOGWOOD stiches, ton	26.00	27.00
Chips 150 lb bags, lb.....	.03	.03½
Madder, Dutch, lb.....		.30
Mangrove 55% 400 lb bbls, lb.....	.03½	nom.
Marble Flour bulk, ton	10.00	12.00
Mangrove Bark, African, ton	39.00	40.00
Montan Wax, crude bags, lb.....	.06½	.07
Bleached bags,.....	.24	.27
Myrobalans 25% liquid bbls, lb.....	.04	.04½
50% solid 50 lb boxes, lb.....	.08	.08½
Myrobalans, bags, J1, ton		41.00
R2,.....	32.00	34.00
J2,.....	33.50	34.00
Nitrogenous Material bulk, unit		3.30
NUTGALLS, Chinese, bags, lb.....	.17	.18
Aleppy bags,.....	.25	nom.
Powd. bags,.....	.22	.24
Oak bark, whole, ton	20.00	23.00
Ground,.....	45.00	50.00
Oak, tanks wks, lb.....		.03½
23-25% liq. 00 lb bbls wks lb	.04	.04½

mary market together with a lessening demand prompted importers to yield to lower bids. Vegetable is unchanged.

Bees Wax—Unchanged and in fair demand over the week. Prices are 57c@58c lb. for white and 41c@42c lb. for yellow refined but in some directions lower figures are quoted.

Blood—Sellers of blood continue to maintain the prices and have no difficulty in disposing of their limited supply. Sales have been made in New York at \$4.85 unit and South American offerings range at \$4.75@4.80 unit.

Candelilla Wax—Is again easier this week. A heavy supply coupled with curtailed demand is the cause for a reduction to 27c@28c lb.

Carnauba Wax—No. 1 yellow and No. 2 regular are higher this week. Regular price are 60c@62c lb. and 55c@56c lb. respectively and the change is merely a recovery due to a better demand. The remaining grades are unchanged in prices and position.

Fish Scrap—Supplies of this material are very scarce as a result of the continued poor fishing results. This week's market is somewhat stiffer, the low price remaining the same at \$5.25 unit but some sales have been made as high as \$5.50 unit. The end of the fishing season is approaching and no reduction in price is likely.

Gums, Varnish—The market for varnish gums is still without life and a few reductions were made. Batavia B seed is lower at 18c@18½c lb. Standard Batavia was lowered 2c lb.

Japan Wax—This market is over supplied and quotations are soft at 17c@18c lb. The demand has not been up to expected proportions and further reductions seem possible.

Rosin—The local rosin market is featured with a better tone in the buying policy, but still below normal amounts. Current prices ex-dock are: B, D, \$9.15 E, \$9.20; F, G, H, I, K, \$9.25; N, \$9.60; WG, \$11.25; WW, \$13.00.

Valonia—Cups are now in a nominal position as there are no offerings. Beards are priced at \$60.00@62.00 ton and mixtures are offered in small quantity at \$59.00 @60.00 ton.

Osage Orange 51 deg. liquid.....	.07	.07½
Powd. 100 lb bags.....	.14½	.15
Crystals.....	.16	.17
Paracouarone, 230 lb drums.....	.12	.15
Paraffin, ref'd 200 lb drums.....	.12	.15
Paraffin, ref'd 200 lb cs slabs		
118-120 deg. M.P.,.....	.08	.09
123-127 deg. M.P.,.....	.06½	.06%
128-132 deg. M.P.,.....	.07½	.07%
133-137 deg. M.P.,.....	.08	.08½
138-140 deg. M.P.,.....	.08½	.10
Phosphate Acid, 16% Bulk wks ton		9.00
Phosphate Rock, f.o.b., mines		
Florida Pebble 68%.....	3.00	3.15
Florida Pebble 70%.....	3.50	3.65
Florida Pebble 72%.....	4.00	4.15
Florida Pebble, basis 75-74% ton	5.00	
Florida Pebble, 75%.....	5.75	
Florida Pebble, basis 77-76% ton	6.25	
Tennessee, 72%.....	5.00	
Pine Oil, stm., dist. bbls, gal......		.70
Destructive dist. bbls, gal......	.63	.64
Prime,.....	8.00	10.60
Plaster Paris, tech., 250 lb bbls bbl.		3.30
Pumice Stone, lump 250 lb bbls lb......	.04½	.06
Lump, bags,.....	.04	.05
Powdered, 350 lb bbls, lb	.02½	.03
QUEBRACHO, 35% liquid tks, lb......	.03	.03½
450 lb bbls c-l,..........	.03½	.04
35% bleaching, 450 lb bbls lb......	.04	.05
Solid 63% 100 lb bales c-l, lb......	.05	.05½
Clarified, 64% bales, lb.....		.05
Quercitron, 51 deg. 450 lb bbls, lb......	.06½	.07
Solid, 100 lb boxes,..........	.10	.13
Quercitron, bark, rough, ton		14.00
Ground,.....	34.00	35.00
Rosins (Solid in 600 lb bbls gross for net)		
B.....	9.15	I.....9.25
D.....	9.15	K.....9.25
E.....	9.20	M.....9.35
F.....	9.25	N.....9.60
G.....	9.25	WG.....11.25
H.....	9.25	WW.....13.00
(Sold in 600 lb bbls net, quotations based on a unit of 280 lb)		
Rosin Oil first run 50 gal bbls, gal......		.57
Second run bbls,..........		.62
Rotten Stone lump imp bbls, lb......	.07	.08
Lump selected, bbls, lb......	.09	.12
Powdered, bbls,..........	.02	.05
Domestic bags mines, lb.	24.00	30.00
Sage Flour 150 lb bags, lb......	.04½	.05
Shellac, T. N., bags, lb......	.49	.50
Superfine bags,..........	.51½	.52
Garnet, bags,..........	.49	.50
Bone dry, bags,..........	.58	.61
Spruce, 25% liquid tanks, wks lb......	.01	.01½
bbls,..........		.01%
Powd., 50% 100 lb bags wks lb......	.02	.02½
Starch, rice, 200 lb..........	.09½	.10
Com Powd. 140 bgs. c-l, 100 lb.		3.07
Pearl, 140 lb bags,.....		2.97
Potato domestic, 200 lb bgs-l lb......	.06	.06½
Imported bags duty paid lb......	.06½	.08½
Wheat, dom., thick bags, lb......	.06½	.07
Thin, bags,..........	.09½	.10
Sol. Potato,..........	.08	.08½
Sumac, extract, liq 450 lb bbls lb......	.05	.06
CP., 450 lb bbls,..........		.10½
Stainless, 600 lb bbls, lb......	.11	.11½
Sumac, Sicily leaves 100 lb bags ton	130.00	nom.
Ground shipment,.....		72.00
Virginia, 150 lb bags,.....	55.00	60.00
TALC, Italian 220 lb bags NY ton	40.00	50.00
Refined, white bags, ton	50.00	55.00
French, 220 lb bgs NY, ton	30.00	35.00
Refined, white bags, ton	38.00	45.00
Dom., crude 100 lb bags NY ton	12.00	15.00
Refined 100 lb bags NY ton	16.00	18.00
Tankage, ground NY, unit	4.75	.10
High grade fob. Chicago, unit	3.75	.10
So. Am. cif, unit	4.75	.10
Tapices Flour, high grade bgs, lb......	.04½	.05
Medium grade, bgs, lb.....	.03½	.04
Tar, Klin-burnt, bbls, lb		13.50
Retort bbls,.....	13.50	15.50
Tripoli, 500 lb,.....	2.00	3.00
Turpentine Spirits bbls, gal......		.56
Wood steam Dist. bbls, gal......	.46	.47
Valonia Cups 30-31% tan, ton		nom
Beard, 42% ton bags, ton	60.00	62.00
Mixture bark bags, ton	50.00	54.00
Wattle Bark, bgs, ton	59.00	60.00
Extract 55% dble bgs ex-dock lb......		.05%
Whiting 200 lb bags c-l wks 100 lb.		1.25
Alba bags NY c-l,.....		13.00
Gilders, bags NY c-l,.....		1.85

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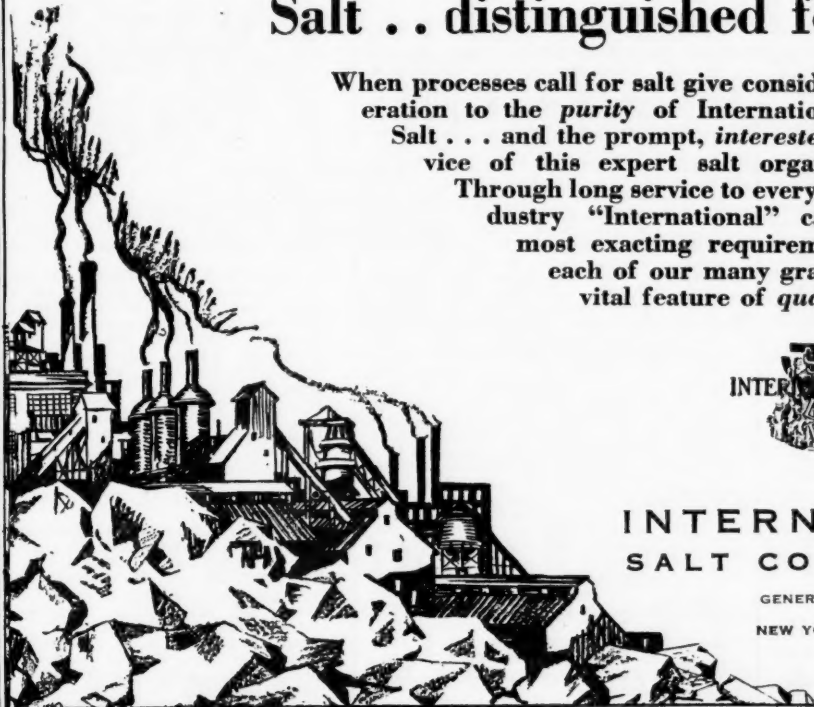
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- Nitric Acid
- Muriatic Acid
- Battery Acid
- H Acid

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- Ammonia
- Ammonia
- Sulphur
- Mercuric Bleach
- Mixed Acids

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- Commercial Alum
- Iron Free Alum
- Bisulphide of Soda
- Bisulphate of Soda

Import Manifests

Heavy Chemicals and
Other Industrial Raw
Materials.

IMPORTS AT NEW YORK October 4 to 11

ACIDS—Cresylic, 1 drum Sherlow Chem Co., Manchester; 20 drs., Tar Acid Ref. Co., Liverpool; 35 drs., order, Hamburg; 80 carboys, Roessler & Hasslacher Chem Co., Hamburg; 95 brls., Innis Speiden & Co., Hamburg; **Oxalic**, 13 cks., Roessler & Hasslacher Chem Co., Rotterdam; **Sludge**, 25 brls., Schliemann Co., Hamburg; **Tartaric**, 130 cks., W. Neuberger, Rotterdam; 25 kegs, Innis Speiden & Co., London

AMMONIUM SALTS—Carbonate, 60 cks., Hans Hinrichs Chem Corp., Rotterdam; 20 cks., J. C. Wiarda Co., Glasgow; **Chloride**, 10 cs., Solvay Sales Corp., Liverpool; **Nitrate**, 161 cks., R. W. Greeff & Co., Oslo

ARGOLS—303 bgs., C. Pfizer & Co., Buenos Aires

BARYTES—900,000 kilos, Ore & Chemical Corp., Rotterdam; 250 bgs., C. J. Osborn & Co., Bremen

BONE MEAL—250 bgs., H. J. Baker & Bro., Liverpool

CALCIUM—Chloride, 14 drs., G. Delawanna, Rotterdam; 250 bgs., 6 cs., C. Hardy Inc., Havre

CAMPOR—Synthetic, 200 cs., E. I. DuPont de Nemours Co., Hamburg; 185 cs., E. I. DuPont de Nemours Co., Rotterdam

CARBON—Decolorizing, 220 bgs., L. A. Salomon & Bro., Rotterdam

CASEIN—250 bgs., Innis Speiden & Co., Havre; 105 bgs., D. C. Andrews & Co., Hamburg; 440 bgs., Nat City Bank Buenos Aires

CHALK—Block, 800,000 kilos, J. W. Higman & Co., Dunkirk; 550 tons, Ewing Fox & Co., Dunkirk

CHEMICALS—25 cks., Jungmann & Co., Hamburg; 77 drs., The Goldschmidt Corp., Rotterdam; 226 bgs., Whittaker Clark & Daniels, Rotterdam; 250 bgs., A. Klipstein & Co., Rotterdam; 31 pgs., Merck & Co., Rotterdam; 35 cks., Whittaker Clark & Daniels, Rotterdam; 180 bgs., Rhodia Chem Co., Rotterdam; 14 brls., Chaplin & Bibbo, Rotterdam; 14 brls., Hummel & Robinson, Hamburg; 250 brls Hummel & Robinson, Bremen; 50 cks., Stanley Doggett Inc., Rotterdam

CHINIDINE—3 cs., R. W. Greeff & Co., Rotterdam

CINCHONINE—2 cs., R. W. Greeff & Co., Rotterdam

COCHINEAL—34 bgs., H. Kohnstamm & Co., Liverpool

COLORS—147 pgs., General Dyestuff Corp., Rotterdam; 182 pgs., General Dyestuff Corp., Rotterdam; 12 pgs., General Dyestuff Corp., Hamburg; 3 cks., B. Bernard Inc., Havre; 253 pgs., General Dyestuff Corp., Rotterdam; 48 pgs., Ciba Co. Havre; 3 cks., B. Bernard Inc., Antwerp; 3 cks., Carbic Color & Chemical Co. Havre; 15 cks., Sandoz Chem Works, Havre; 35 cks., Geigy Co., Havre; 13 brls., Carbic Color & Chemical Co., Havre; 35 cks., Reichard Coulston Inc., Havre; 4 cs., B. F. Drakenfeld Co., Bremen; 13 cks., R. Faust, Rotterdam; 6 cks., Reichard Coulston Inc., Havre; **Bronze Powder**, 21 cs., T. D. Downing & Co., Hamburg; 6 cs., Gallagher & Ascher, Hamburg; 10 cs., L. Uhlfelder & Co. Bremen; 2 cs., T. D. Downing & Co., Hamburg; 6 cs., H. Behlen & Bro., Hamburg; 16 cs Hensel Bruckmann & Lorbacher, Bremen; 22 cs., B. F. Drakenfeld & Co., Bremen; 4 cs., P. C. Kuyper & Co., Liverpool; 4 cs., P. H. Petrey & Co., Bremen; **Earth**, 57 cks., Reichard Coulston Inc., Bremen

EPSOM SALTS—250 bgs., A. Klipstein & Co., Bremen

EXTRACTS—Quebracho, 3141 bgs., Tannin Corp., Buenos Aires

GELATINE—48 brls., 25 kegs, H. A. Sinclair, Rotterdam

GLUE—24 cks., 40 bls., T. M. Duche & Sons, Antwerp; 20 cks., Susquehanna Silk Mills, Antwerp; 268 bgs., J. J. Shore & Co., Rotterdam; 2 bls., Arabol Mfg. Co., Hamburg; 60 cks., Pfaltz & Bauer, Bremen

GLYCERIN—60 cks., Hercules Powder Co., Rotterdam; 26 drs., McKesson & Robbins, Rotterdam; 50 drs., Union Explosive Co., Rotterdam; 40 drs., Parsons & Petit, Rotterdam

GUMS—Arabic, 254 bgs., T. M. Duche & Sons, Port Sudan; 100 bgs., Brown Bros. & Co., Port Sudan; 150 bgs., J. Monroe & Co., Port Sudan; 157 bgs., Innis Speiden & Co., Port Sudan; 158 bgs., Thurston & Braidich Port Sudan; 250 bgs., T. M. Duche & Sons, Port Sudan; 150 bgs., Barclays Bank, Port Sudan; **Chicle**, 50 bls., J. W. Hampton & Co., Progreso; 10 bls., H. Triest & Co., Vera Cruz; **Copal**, 259 bgs., G. W. S. Patterson Co., Antwerp; 199 bks., Sino Java Handel Inc., Macassar; 400 bgs., S. Winterbourne & Co., Antwerp; 200 bgs., Innes & Co., Antwerp; 134 bks., Gravenhurst & Co., Macassar; 596 bks., L. C. Gillespie & Co., Macassar; **Damar**, 75 cs., 64 bgs., Winterbourne & Co., Singapore; 64 bgs., Innes & Co. Singapore; 64 bgs., L. C. Gillespie & Sons, Singapore; 64 bgs., Paterson Boardman & Knapp, Batavia; 64 pgs., 75 cs., S. Winterbourne & Co., Singapore; 64 bgs., Innes & Co., Singapore; 64 bgs., L. C. Gillespie & Sons, Singapore; 100 bgs., Paterson Boardman & Knapp, Batavia; 100 cs., Innes & Co., Batavia; 50 cs., A. Klipstein & Co., Batavia; 100 cs., Standard Bank of So. Africa; Batavia; 300 cs., L. C. Gillespie & Sons, Batavia; 400 cs., 100 bgs., Paterson Boardman & Knapp; **Ghatti**, 119 bgs., T. M. Duche & Sons, Bombay; **Kauri**, 12 cs., G. W. S. Patterson & Co., Auckland; 80 cs., Davies Turner & Co., Auckland; **Oilbanum**, 40 bgs., S. B. Penick & Co., Bombay; **Tragacanth**, 14 bgs., F. Vliet Co., Hamburg; 4 cs., F. Vliet Co., London

IODINE—309 kegs, Nash Watjen & Bangs, Chile

IRON-OXIDE—40 brls., A. Kramer & Co., Malaga; 56 brls., C. K. Williams & Co., Malaga; 125 brls., C. J. Osborn, Malaga; 10 cks., Whittaker Clark & Daniels, Bremen; 10 cks., A. Kramer & Co., Liverpool; 33 cks., J. A. McNulty, Liverpool; 10 cks., J. H. Nichols & Son, Liverpool; 12 cks., Reichard Coulston Inc., Liverpool; 100 brls., Hummel & Robinson, Malaga; 40 brls., Wishnick Tumpeer Inc., Malaga

LITHOPONE—500 cks., B. Moore & Co., Rotterdam; 75 cks., African Metals Corp., Antwerp; 300 cks., B. Moore & Co., Rotterdam

LITMUS—1 brl., Merck & Co., Rotterdam

MANGANESE ORE—1049 bgs., Brown & Roese Port Antonio; 772 bgs., Kelley & Tennent, Port Antonio

METHANOL—289 drs., Kuttroff Pickhardt & Co., Rotterdam

MINERAL WHITE—767 bgs., Whittaker Clark & Daniels, Hull

OCHRE—7 cks., Spezzie & Sperrle, Glasgow; 240 cks., C. K. Williams & Co., Marseilles; 75 cks., F. L. Kraemer & Co., Bordeaux; 22 brls., Hummel & Robinson, Malaga; 40 cks., Wishnick Tumpeer Co., Marseilles; 881 brls., Reichard Coulston, Marseilles; 40 brls., Wishnick Tumpeer Co., Marseilles; 141 brls., J. Lee Smith & Co., Marseilles; 186 cks., Reichard Coulston Inc., Marseilles

OILS—Coconut, 4,406,091 lbs., Philippine Refining Corp., Manila; 439 tons, Philippine Refining Corp., Manila; **Cod**, 500 brls., Kidder Peabody & Co., Hull; 118 cks., Cook Swan & Young, Halifax; 5 cks., McKesson & Robbins, St. Johns; 300 cks., National Oil Products Co., St. Johns; 32 cks., R. Badcock & Co., St. Johns; 800 cks., National Oil Products Co., Oslo; **Codliver**, 50 brls., E. M. Javitz & Son, Oslo; 50 brls., Asia Drug Co., Oslo; 50 brls., F. Stearn & Co., Hamburg; **Olive**, 250 cs., F. Romeo & Co., Malaga; 100 cs., Randazzo Imptg. Co., Genoa; 55 cs., J. Petrocelli & Co., Genoa; 110 cs., Italian Imptg Co., Genoa; 40 cs., Italian Imptg Co., Genoa; 250 cs., L. Montagne Inc., Southampton; 50 brls., G. Lueders & Co., Nice; 50 cs., Aurora Imptg Co., Seville; 500 cs., H. J. Heinz & Co., Seville; 100 cs., P. Pastene & Co., Genoa; **Palm**, 1584 cks., D. Bacon, Liv-

erpool; **Palm Kernel**, 234 tons, J. Bibby & Son, Liverpool; 2 brls., R. Badcock & Co., Liverpool; **Peanut**, 7 brls., Lamont Corliss & Co., Rotterdam; **Rapeseed**, 25 brls., Smith Weihman Oil Co., Rotterdam; 25 cks., S. Blumenthal, Rotterdam; **Seal**, 100 cks., Bowring & Co., St. Johns; **Sperm**, 10 brls., National Oil Products Co., Glasgow; **Sulfur**, 100 brls., J. B. Dewsnap & Co., Piraeus; 100 brls., H. W. Peabody & Co., Piraeus

PLUMBAGO—700 bgs., 77 brls., C. F. Pettinos, Colombo; 40 bgs., International Ore & Metal Selling Co., Havre; 264 brls., Paterson Boardman & Knapp, Colombo

POTASSIUM SALTS—Caustic, 98 drs., Innis Speiden & Co., Rotterdam; 15 cs., Mallinckrodt Chem Works, Gothenburg; **Chlorate**, 1300 cks., Monmouth Chem Wks Hamburg; **Nitrate**, 508 bgs., Kuttroff Pickhardt & Co., Hamburg; 280 cks., Hummel & Robinson, Hamburg; **Perchlorate**, 250 brls., Anglo So. American Trust Co., Havre; **Prussiate**, 100 kegs, American Cyanamid Co., Hamburg

QUICKSILVER—350 flasks, C. L. Huisking Inc., Alicante; 200 flasks, Lo Curto & Funk, Alicante; 400 flasks, H. W. Peabody & Co., Alicante

QUINIDINE—3 cs., R. W. Greeff & Co., Rotterdam

SAL AMMONIAC—144 cks., Kuttroff Pickhardt & Co., Rotterdam; 67 cks., Monmouth Chem Cor. Rotterdam

SHELLAC—674 bgs., Ralli Bros., London; 900 bgs., Farmers Loan & Trust Co., Calcutta; 200 bgs., 60 cs., Rogers Pyatt 300 bgs., Mac Lac Co., Calcutta; 100 bgs., Bank of London & So American, Calcutta; 200 bgs., 60 cs., Rogers Pyatt Shellac Co., Calcutta; 134 bgs., Ralli Bros., Hamburg

SODIUM SALTS—Caustic, 52 cs., Mallinckrodt Chemical Works, Gothenburg; 5 cs., Pfaltz & Bauer, Gothenburg; **Cyanide**, 500 cs., Roessler & Hasslacher Chem Works, Rotterdam; 420 cans, C. Hardy Inc., Havre; **Hydrosulfite**, 20 drs., order, Hamburg; **Nitrate**, 205 bgs., R. W. Greeff & Co., Oslo, 12,565 bgs., W. R. Grace & Co., Iquique; **Nitrate**, 50 cks., Kuttroff Pickhardt & Co., Rotterdam; **Phosphate Diabasic**, 278 cks., Rhodia Chem Co., Rotterdam; **Silico Fluoride**, 250 brls., Superfos Co., Rotterdam

TAPIOCA—234 bgs., Catz American Co., Batavia

TARTAR—234 bgs., C. Pfizer & Co., Trieste; 1865 bgs., Tartar Chem Works, Marseilles; 90 bgs., C. Pfizer & Co., Lisbon; 617 bgs., C. Pfizer & Co., Trieste; 145 bgs., Tartar Chem Works, Lisbon; 372 bgs., Tartar Chem Works, Tarragona; 462 bgs., C. Pfizer & Co., Alicante; **Cream**, 14 cks., Hans Hinrichs Chem Corp., Marseilles

TEA WASTE—1296 bgs., W. Schall & Co., Calcutta

WAX—Bees, 16 bgs., W. Schall & Co., Hamburg; 6 cs., J. J. Julia & Co., Monte Cristi; 10 cks., W. Schall & Co., Pto Plata; 16 bgs., Mecke & Co., Azua; 16 bgs., Selma Mercantile Corp., Azua; **Ozokerite**, 426 bgs., J. Dick, Hamburg

WHITING—1998 brls Nat City Bank, Antwerp; 900 bgs., Coupee Fils, Dunkirk; 2000 bgs., Scott L. Libby Corp., Havre; 406 bgs., Chaplain & Bibbo, Hamburg

WOODFLOUR—291 bgs., Burnet Co., Gothenburg; 500 bgs., A. Kramer & Co., Rotterdam; 562 bgs., State Chem Co., Rotterdam

WOOL GREASE—52 cs., Borne Scrymser & Co., Antwerp; 75 brls., R. Badcock & Co., Liverpool

IMPORTS AT PHILADELPHIA Sept. 28 to Oct 5

ACIDS—Cresylic, 50 drums, order, Rotterdam; 25 drums, order, Hamburg; **Formic** 84 demijohns, order, Hamburg; 74 carboys, order, Hamburg; **Phosphoric**, 376 demijohns, order, Hamburg; **Oxalic**, 500 bags, Alpha Lux Co., Rotterdam; 20 casks, order, Rotterdam

AMMONIUM MURIATE—20 casks, order, Rotterdam; 10 casks, order, Rotterdam

ARSENIC—50 casks, J. H. Schroder Banking Corp., Hamburg

BAUXITE—2,261 tons, Republic Mining



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& Mfg. Co., Georgetown Demerara; 1,605 tons Republic Mining & Mfg Co., Georgetown, Demerara

BONE MEAL—3,716 bags, Ralli Bros. Karachi

BRONZE POWDER—3 cases, M. Rice Co., Bremen; 2 cases, Koons Wilson & Co., Hamburg

CAUSTIC POTASH—5 drums, Superfos Co. Hamburg; 100 drums, order, Hamburg

CHEMICALS—5 drums, O. G. Hempstead & Son, Bremen; 500 bags, order, Hamburg; 300 kegs, order, Hamburg; 80 balloons, Roessler & Hasslacher Chem Co., Rotterdam; 24 casks order, Rotterdam 280 casks, order, Rotterdam; 59 casks, order, Rotterdam; 84 casks, order, Rotterdam

CLAY—China, 3140 tons, Various consignees, Fowey; **Sagger**, 100 tons, various consignees, Fowey

EPSOM SALTS—111 bags order, Hamburg; 200 kegs, order, Hamburg

FERRO ALLOY—432 bags, Truempy, Faesy & Besthoff Inc, Genoa; 45,360 kilos and 455 bags, Truempy, Faesy & Besthoff Inc., Genoa

FLUORSPAR—504,272 bbls, Standard Bk. of South Africa Ltd., Durban

GLAUBER SALTS—100 bbls., order, Hamburg

GLYCERIN—130 drums, Harshaw, Fuller & Goodwin Co., Hamburg; 90 casks, order, Marseilles; 47 casks, order, Barcelona

GYPSUM—1,324 bags, Phila-Girard National Bank, Bremen

LITHOPONE—2 casks, A. Klipstein & Co., Hamburg

MAGNESITE—100 bbls., Brown Bros & Co. Rotterdam; 100 bbls., Chatham Phoenix Bank & Trust Co., Rotterdam

MOLASSES—1,300,000 gals, Publiker Comm. Alcohol Co., Antilla

MYROBALANS—6,884 pockets, Standard Bank of South Africa, Ltd., Calcutta; 4,000 pockets, Standard Bank of South Africa Ltd., Calcutta; 7,195 pockets, Standard Bank of So. Africa Ltd., Calcutta; 4,776 bags, Standard Bank of South Africa Ltd., Bombay

OILS—Codliver, 200 bbls., order, Hamburg; 50 bbls., order, Hamburg; **Olive**, 70 cases, P. Pastene & Co., Genoa, 8 cases, A. Perua; Genoa, 300 cases, order, Genoa, 500 cases, order, Leghorn; 50 cases, order, Nice; **Sulfur**, 100 bbls., order, Genoa; 200 bbls., Banca Comm. Italia Trust Co., Palermo

ORES—Chromite, 969,782 lbs., Brown Bros & Co., Lourenco, Marques; **Iron**, 200 tons, C. K. William & Co., Malaga; **Manganese**, 2000 tons, E. J. Lavino & Co., Calcutta; **Pyrites**, 3450 tons, Krebs Chemical Co., Antwerp; 8671 tons, The Pyrites Co., Huelva

PHOSPHOROUS TRICHLORIDE—23 bottles, order, Hamburg

POTASH—69 bbls., Brown Bros & Co., Hamburg; **Carbonate**, 24 casks, order, Rotterdam

SHELLAC—350 bags, order, Calcutta; 860 bags, order, Calcutta; 1166 bags, order, Calcutta; **Garnet**, 134 bags, New York Trust Co., Bremen

SODIUM SALTS—Cyanide, 340 drums, order, Rotterdam; Fluoride, 12 casks, order, Hamburg; 68 bbls., order, Hamburg; **Prussiate**, 42 casks, order, Rotterdam; **Sulfate**, 20 drums, order, Hamburg

SUMAC—140 bags, order, Palermo

ZINC—Chloride, 42 drums, order, Hamburg; 50 drums, order, Rotterdam; **Sulfate**, 86 bbls., order, Rotterdam

IMPORTS AT BOSTON October 1 to 8

COLOR—Aniline, 9 drs., 5 cks., 3 kgs., 1 cs., Dyestuff Corp. of America, Liverpool

CHEMICALS—125 bags, Rhodia Chem Co., Rotterdam; 50 cks., Rhodia Chem Co., Rotterdam; 78 cks., order, Rotterdam; 300 bgs., Paul Uhlich Co., Rotterdam; 80 balloons, 25 cks., Roessler & Hasslacher Chem Co., Rotterdam

GLAUBER SALTS—100 cks Kuttroff Pickhardt Co., Rotterdam

SODIUM—Cyanide, 372 drs., order, Liverpool; **Sulfide**, 35 drs. Irving M. Sobin, Rotterdam; **Yellow Prussiate**, 9 cks., A. Klipstein Co., Rotterdam

IMPORTS AT SAN FRANCISCO Sept. 24 to Oct. 1

ACID—25 bbls., Mailliard & Schmiedell, Hamburg

ARSENIC—100 cases, Edward L. Eyre & Co., Kobe

BARYTES—57 casks, Bank of California, Bremen

Exports Chemicals, Oils and Fats

EXPORTS AT NEW YORK

ACETATE—Amyl, 6 drs., September, 2, Pto Colombia

EXPORTS AT NEW YORK

ACID—Acetic, 1 cse., Sept. 13, Montevideo; **Boric**, 3 bbls., Sept. 22, Cienfuegos; **Carbolic**, 1 cse., Sept. 13, Tumaco; **Glacial Acetic**, 20 cts., Sept. 6, Cartagena; 12 cs., Sept. 28, Perth; 238 cts., Sept. 21, Vera Cruz; **Hydrochloric**, 10 cs., Sept. 20, Manila; **Nitric**, 4 cs., Sept. 2, Pto Colombia; **Phosphate**, 20 bgs., Sept. 2, Rio de Janeiro; **Sulfuric**, 7 cs., Sept. 20, Manila; 2 carboys, Sept. 21, Sekondi

ALCOHOL—Wood, 30 drs., Sept. 6, Pto Colombia; 20 cs., August 30, Santa Marta

AMMO PHOS—320 bgs., Sept. 20 Honolulu

AMMONIUM—Anhydrous, 10 cys., Sept. 2, Pto Colombia; 100 cys., Sept. 16, Buenos Aires

BRONZE POWDER—6 cs., Sept. 2, Buenos Aires

CALCIUM—Carbide, 100 drs., Sept. 7, Pto Cabello; 100 drs., Sept. 7, Maracaibo; 1120 drs., Sept. 20, Manila; 20 drs., Sept. 22, Pto Colombia; 600 drs., Sept. 20, Honolulu; 900 drs., Sept. 21, Vera Cruz; 411 drs., 50 cs., Sept. 21, Vera Cruz

CARBIDE—10 drs., Sept. 7, Maracaibo

CARBON—Bisulfide, 20 drs., Sept. 28, Perth; **Black**, 32 cs., Sept. 23, London; **Tetrachloride**, 2 drs., Sept. 28, Perth

COPPER—Sulfate, 100 kgs., Sept. 13, Buenos Aires

CYANIDE—200 drs., Sept. 28, Fremantle; 1009 drs., Sept. 21, Vera Cruz; 454 drs., Sept. 21, Vera Cruz

DIPHENYL GUANIDINE—11 cs., Sept. 9, Liverpool

EPSOM SALTS—10 kegs, Sept. 21, Vera Cruz

EXTRACT—Logwood, 80 cks., Sept. 23, Glasgow

FORMALDEHYDE—12 cs., Sept. 20, Manila; 158 bbls., Sept. 23, London

GLAUBER SALT—8 cs., Sept. 16, Pto Colombia; 15 bbls., Sept. 22, Cienfuegos; 10 cs., Sept. 16, London

GRAPHITE—10 bbls., Sept. 26, Tarafa; 6 bbls., Sept. 16, London; 10 kgs., Sept. 21, Vera Cruz; 5 cs., Sept. 21, Rotterdam

GUM—Arabic, 5 bgs., Sept. 7, Pto Cabello; **Copal**, 249 bgs Sept. 27, Antwerp; **Tragacanth**, 11 bgs., Sept. 16, Trieste

LIME—Chloride, 20 cs., Sept. 23, Havana; 100 cs., Sept. 23, Havana

OILS—Castor, 6 cs., August 30, Cristobal; **Coconut**, 100 drs., Sept. 21, Havana; **Linseed**, 119 drs., Sept. 21, Havana; 115 drs., Sept. 23, Havana; **Soya Bean**, 15 drs., Sept. 15, Santiago

LINSEED OILCAKE—8400 bgs., Sept. 8, Rotterdam; 10,500 bgs., Sept. 1, Rotterdam; 635 bgs., Sept. 9, Liverpool; 1317 bgs., Sept. 21, Antwerp; 3500 bgs., Sept. 27, Antwerp; 2746 bgs., Sept. 27, Antwerp; 4574 bgs., Sept. 23, Liverpool; 400 bgs., Sept. 7, Rotterdam; 15,500 bgs., Sept. 21, Rotterdam

LITHOPONE—160 bbls., Sept. 28, Sydney

MALT—562 bgs., Sept. 2, Rio de Janeiro

NICKEL—Oxide, 174 bbls., Sept. 8, Rotterdam

PHENOL—1 bbl., Sept. 12, Rotterdam

POTASSIUM SALTS—Caustic, 15 drs Sept 16, Buenaventura; **Iodide**, 37 cs., Sept. 23, London

ROSIN—10 drs., Sept. 23, London; 50 bbls., Sept. 7, Pto Cabello

SALTPETRE—5 kgs., Sept. 7, Maracaibo

SILICON DIOXIDE—6 bbls Sept. 16, London

SODIUM SALTS—Ash, 100 bbls., Sept. 7, Pto Cabello; 25 bbls., Sept. 23, Glasgow; 70 bbls., 300 kgs., Sept. 27, Rotterdam

Benzoate, 1 bbl., August 30, Pto Colombia; **Bicarbonate**, 3 cs., Sept. 7, Curacao; 15 kgs., Sept. 2, Pto Colombia; **Caustic**, 29 drs., Sept. 16, Buenos Aires; 150 drs., Sept. 23, Pernambuco; 250 cs., 40 drs., Sept. 23, Havana; 28 drs., Sept. 16, London; 50 drs., Sept. 16, Pto Colombia; 12 drs., Sept. 13, Guantnamo; 5 drs., August 30, Jamaica; 12 drs., Sept. 7, Pto Colombia; **Cyanide**, 10 drs Sept 23, Havana; **Hyposulfite**, 10 kgs Aug 30, Cristobal; 20 kgs., Sept. 2, Pto Colombia; 25 kgs., Sept. 20, Manila; **Perparate**, 10 kgs., Sept. 21, Vera Cruz; **Sal**, 15 bbls., Sept. 2, Santa Marta; **Silicate**, 25 drs., Sept. 16, Buenaventura; 48 bgs., August 30, Pto Colombia; 10 drs., Sept. 22, Pto Colombia

SPONGES—6 bbls., Sept. 16, Trieste; 55 bbls., Sept. 16, London; 4 bbls., Sept. 23, London

STEARINE PITCH—280 drs., Sept 27, Antwerp

TALC—6 cs., Sept. 22, Cienfuegos; 8 bgs., Sept. 2, Pto Colombia; 4 bgs. Sept. 2, Santa Marta; 140 bgs., Sept. 9, Liverpool; 280 bgs, Sept. 27, Liverpool; 46 cs., Sept. 23, London

ULTRAMARINE BLUE—4 bbls., Sept. 6, Corinto

ZINC—Oxide, 194 bbls., Sept. 7, Rotterdam; 20 bbls., Sept. 8, Rotterdam; 6 kgs., Sept. 13, Buenaventura; 6 kgs. Sept. 7, La Guaira; 200 bbls., Sept. 16, London; 10 kgs., Sept. 21, Vera Cruz; **Stearate**, 13 bbls., Sept. 13, Buenos Aires; 4 bbls., Sept. 7, La Guaira

IMPORTS AT NEW ORLEANS

Sept. 30 to Oct 7 1927

BENZINE—9137 tons, N. O. Refining Co. Curacao

BAUXITE—2728 tons, Republic Mining Co. Georgetown; 2523 tons, Republic Mining Co., Paramaribo

GUM—Chicle, 623 bales Wm. Wrigley, Frontera

MOLASSES—1,640,357 gals. Dunbar Molasses Co., Havana

POTASH—Caustic, 200 drums, order, Bremen

SALTPETRE—1816 bags, order, Hamburg

BALTIMORE IMPORTS

Sept. 30 to Oct. 6

BONE MEAL—527 bags, 99,539 lbs., H. J. Baker & Bro., Ambridge, Rotterdam; 900 bags, R. S. Mueller Co., West Eldara, Antwerp

CHALK—1,000 bags, 111,650 lbs., A. Klipstein & Co., New York, West Eldara, Antwerp

CHEMICALS—30 casks, 18,454 lbs., Roessler & Hasslacher Chemical Co., Ambridge, Rotterdam

HORN MEAL—729 bags, 60 tons F. H. Shallus Co., City of Flint, Leith

LIMESTONE—1,000 bags, 110,000 lbs., William H. Masson, West Eldara Antwerp

MANGANESE ORE—1500 tons, Carnegie Steel Ranger, Calcutta

SEED—Rape, 150 bags, 33,495 lbs, Baltimore & Ohio railroad, Ambridge, Rotterdam

CHEMICALS—59 drums, Anglo & London Paris National Bank, Hamburg; 27 casks, Order, Hamburg; 68 drums, order, Hamburg

CLAY—100 casks, order, Bremen

COPRA—1230 tons, Kidder, Peabody Acceptance corp., Menado; 129 tons, Kidder, Peabody Acceptance Corp., Davao; 106 tons, El Dorado Oil Works, Davao; 147 tons, Kidder Peabody Acceptance Corp., Zamboanga; 284 tons, El Dorado Oil Works, Zamboanga; 408 tons, Vegetable Oil Corp., Jolo; 1341 tons, El Dorado Oil Works., Cebu; 583 tons, El Dorado Oil Works, Masbate; 2476 sacks, Atkins Kroll & Co., Suva; 781 sacks, Great Pacific Co., Suva; 1445 sacks, Bank of New South Wales, Suva

EPSOM SALTS—367 bags, Bank of California, N. A., Hamburg

GRAPHITE—375 bags, Mitsui & Co., Kobe

GUM—Copal, 141 cases National City Bank of New York, Macassar

KAPOC—100 bales, H. W. Peabody, Sourabaya; 400 bales, Burns, Philp & Co., Hongkong

OAKUM—20 bales, order, Kobe

OIL—Codliver, 100 bbls., Wilbur Ellis Co., Kobe; **Wood**, 600 tons, Pacific Orient Co., Shanghai

PHOSPHATE—250 bags, order, Antwerp

TAPIOCA—Dust, 126 bags, Hoyt, Shepston & Sciaroni, Sourabaya

WAX—Paraffin, 640 boxes, Shell Co, Balikpapan

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U. S., 10c U. S. Patent Office, Washington. British, draft on London, one shilling, British Patent Office, 25 Southampton Bldgs., Chancery Lane, W. C. 2, London. French one franc, Minister of Commerce & Industry, Paris. German, draft on Berlin, one mark, German Patent Office, Berlin.
Application date appears with each patent.

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Issued Sept. 27, 1927.

- 1,643,301.—Treating Butter Cream with SO₂. G. A. Gray, Cincinnati, O., assignor, M. B. Newburger, Covington, Ky. July 16, 1923.
1,643,393.—Cyclohexyl Phthalates. E. E. Reid and G. L. Schwartz, assignors, E. L. Schwartz, assignors, E. I. duPont de Nemours & Co., Wilmington. July 15, 1922.
1,643,401.—Light Hydrocarbon Liquids. W. S. Yard and E. N. Percy, Oakland, Calif. Mar. 17, 1924.
1,643,428.—Anthraquinone Nitrosamine Compound. H. Tesche and A. Job, Elberfeld, Germany, assignors, Grasselli, Dyestuff Corp., New York. Oct. 12, 1925.
1,643,437.—Fabrik Cement. N. C. Amen, assignor, H. H. Randolph, Kansas City, Mo. July 10, 1924.
1,643,496.—Improving Aldehyde Resins. W. O. Herrmann H. Deutsche & W. Haehnel, Munich, assignors, Consortmuer fuer Elektrochemische Industrie G.m.b.H., July 26, 1923.
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The industrial alcohol council appointed two weeks ago by Assistant Secretary Lowman of the Treasury, in charge of prohibition, to advise Dr. J. M. Doran, Commissioner of Prohibition, in his program of regulation of alcohol production, will be called to meet in the latter part of October, according to an announcement from the Bureau of Prohibition.

The members of the council are Dr. Martin H. Ittner, chairman, Industrial Alcohol Committee, American Chemical Society and chief chemist, Colgate & Co., Jersey City, N. J.; Dr. Harrison E. Howe, Washington, D. C., editor, "Journal of Industrial & Engineering Chemistry"; H. S. Chatfield, New York City, chairman, Industrial Alcohol Commission, Paint, Oil & Varnish Assn.; A. Homer Smith, president Sharp & Dohme, Baltimore; Frank A. Blair, Household Products Corp., New York City; Samuel C. Henry, secretary, National Assn. Retail Druggists, Chicago; Frank J. Noonan, Noonan & Sons, Boston; Russell R. Brown, New York City, president, U. S. Industrial Alcohol Co.; George F. Dieterle, president, Federal Products Co., Cincinnati; C. Mahlon Kline, Smith, & French, Philadelphia; Fred S. Rogers, Middletown, N. Y., president, Flavoring Extract Manufacturers' Assn.; and Charles L. Reese, E. I. du Pont de Nemours Co., Wilmington, Del.

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SULFUR IN VOLATILE FUEL

A new method for determining sulfur in volatile fuels has been devised by Bureau of Standards for the purpose of providing a means for the more accurate measurement of sulfur which occurs in motor fuels and similar products, according to the Department of Commerce.

When a motor fuel contains a high percentage of sulfur, the products of combustion of the fuel contain a considerable amount of sulfur dioxide and sulfur trioxide. These two oxides combine with any water that may be in the crankcase to form acids which have a corrosive action on the bearings and cylinders with which they come in contact. By measuring the percentage of sulfur in motor fuels before purchase, it is possible to predict the performance of a fuel as regards corrosion, and to reject material which contains a dangerous amount.

The specifications of the United States Government for gasoline set a limit of one-tenth of one per cent for sulfur. Any amount over this limit is considered sufficient to cause rejection if submitted for Government purchase.

The Gas production in Spain in 1926 was 104,992,100 cubic meters, or an average production of 321 cubic meters per ton of coal, according to official statistics recently published in one of the leading newspapers of Madrid. The yield of by-products included 207,751 tons of coke, 14,574 tons of pitch averaging 45 kilos to the ton of coal, 2,301 tons of ammonium sulfate, averaging 9 kilos to the ton) 164 tons of benzol (averaging 1.5 kilos to the ton) and 19 tons of light oils.

France now supplies its domestic market with sulfur dyestuffs and produces considerable quantities of indophenol, thiazine and indigo, despite the German claim of recovery of some ground in world markets in dyestuffs. This report comes from Consul in Charge H. C. Claiborne, Frankfort on Main, Germany, who adds, that to improve their Chinese market, the Germans have reduced the price of indigo and direct blue almost fifteen per cent.

Canadian Goodrich Rubber Co., King Street, Kitchener, Ont., has filed plans for the construction of a new three-story and basement mill, 100 x 125 ft., to cost more than \$250,000, with machinery.

Wausau Sulphate Fibre Co., Mosinee, Wis., is working on a one story addition to its plant.

Another complete chemically combined fertilizer, nitrophoska III, was put on the local market in August by the German Nitrogen Syndicate. According to Trade Commissioner William T. Dougherty, this is in addition to its two previous mixtures that were announced in December 1926. The new fertilizer presents another concentrated fertilizer substance, containing 16.5 per cent nitrogen, 16.5 per cent phosphoric acid, of which 15.2 per cent is water soluble and 1.3 per cent citrate-soluble, and 20 per cent pure potash. Thus, it is characterized by a comparatively high percentage of phosphoric acid.

The domestic price is 26.70 marks per 100 kilos product delivered anywhere within Germany. Nitrophoska I is priced at 26 marks per 100 kilos and Nitrophoska II, at 24.50 marks. Nitrophoska I has 17 per cent nitrogen, 12.7 per cent phosphoric acid, and 21.1 per cent pure potash. Nitrophoska II has 14.7 per cent nitrogen, 11.1 per cent phosphoric acid and 25.6 per cent potash. It is thus observed that while Nitrophoska I has 50.8 per cent and Nitrophoska II, 51.4 per cent, Nitrophoska III has 53 per cent available plant food.

CANADIAN RUBBER OUTPUT

Toronto, Ont., Oct. 6.—Canadian rubber industry's gross production for 1926 amounted to \$86,508,137, an increase of \$8,278,563, or 10.58 per cent over 1925, according to a report of the Dominion Bureau of Statistics. The net value, however, decreased from \$39,840,222 in 1925 to \$36,605,948 in 1926 due to relatively high cost of materials during the latter year. Value of crude rubber used during this period was \$29,407,857. Total capital invested was \$62,661,702.

Aluminum sulfate is now being manufactured by the Argentine government for its own use, thus removing the country from the list of possible consumers. Chemical importers in Buenos Aires stated that, in the past, American manufacturers' prices were found to be higher than those of German firms, according to Assistant Commercial Attache H. B. MacKenzie.

Russia intends to resume her exports of alcohol and fusel oils. In order to reduce the overhead expenses these products will be exported from plants located in Southern Russia.

United States Finishing Co., Sterling Conn., is perfecting plans for the constructions of a new local silk-finishing mill, to cost about \$45,000.

ARGENTINE INSECTICIDES

Foreign manufacturers of prepared products face competition in the Argentine market from domestic factories producing insecticides from local and imported chemicals. The following statistics from Vice-Consul C. W. Gray, Buenos Aires show the amounts imported and the countries of origin:

Importation into Argentina of Arsenic for Industrial Uses.		
From	1924 Kilos	1925 Kilos
Germany	228,241	371,969
Belgium	85,655	105,624
United States	29,026	72,209
France	4,882	
Japan	24,344	
United Kingdom	18,641	10,844
TOTALS	390,789	560,646

Importation into Argentina of Insecticide Powder		
From	1924 Kilos	1925 Kilos
Germany	30,018	9,627
Austria	216	1,070
Spain	7,139	17,355
United States	10,819	9,996
France	3,035	5,323
Italy	11,677	16,996
Japan		214
United Kingdom	887	765
Uruguay		162
TOTALS	63,791	61,508

Importation into Argentina of Sulfur Unground. (Azufre brute, en piedra)		
From	1924 Kilos	1925 Kilos
United States	5,552,236	7,215,302
Italy	5,806,400	3,282,650
TOTALS	11,358,626	10,497,952

Imports of powdered sulfur in 1924 were 1,090,237 kilos, of which Italy supplied 1,068,154 kilos. In 1925, of the 886,535 kilos imported, Italy furnished 876,777 kilos. The United States furnished only 683 kilos in 1925 and none in 1924.

In the first six months of 1926, Argentina imported 229,270 kilos of arsenic for industrial uses, 19,476 kilos of insecticide powder, 13,478,892 kilos of unground sulfur, 510,058 kilos of powdered sulfur and 2,394,724 kilos of chemical and pharmaceutical products and substances. Later statistics are not yet available.

Fertilizer is used only in a narrow strip of Northern Honduras devoted to intensive banana culture and sugar cane growing. Banana lands are naturally alluvial deposits of great depth and richness. Many of these lands are flooded every year and obtain a deposit of silt which renews their life.

Approximately 30,000 tons of Italian sulfur is being imported annually by Greece, but owing to lower prices and higher quality of the American product, the United States may eventually displace Italy as a source of supply.


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Plasticizers in Lacquers

(Continued from page 492)

substances can be used with all cellulose esters. The specific gravity of diphenylmethane is 1.060, that of diphenyl oxide 1.073; the former melts at 25 degrees C and the latter at 28 degrees C; the flame temperatures are 130 and 115 degrees C; the boiling temperatures are 260 degrees C in each case.

Phenylethyl Alcohol

Another plasticizer of value is phenylethyl alcohol, known as Plastoform II. This liquid has a pleasant odor, a little soluble in water and very easily soluble in the common organic reagents. It is a good gelatinizer of both cellulose acetate and nitrocellulose. This substance is stable and is not oxidized by exposure to air, as in the case of benzyl alcohol, which has been found to change into benzaldehyde by the action of atmospheric oxygen. The specific gravity of phenylethyl alcohol is 1.024, the flame temperatures 102 degrees C, the boiling point 220 degrees C, the acetyl number 341 and the molecular weight 122.

Still another interesting plasticizer is acetophenone, or phenylmethyl ketone. It bears the trade name Mittel AHN. It is a slightly yellowish liquid, of strong refractive properties, slightly soluble in water and possessing a pleasant odor. Its gelatinizing properties are very important, particularly for making cellulose acetate lacquers. Its specific weight is 1.031 at 15 degrees C, flame temperature 105 degrees C, boiling point 200 degrees C and molecular weight 120 degrees C.

Cyclohexyl adipate is another plasticizer, just recently placed on the market which comes in the solid form. It is a white crystalline substance with a melting point of 38 degrees C. The boiling point of the technical product varies between 315 and 325 degrees C. The flame temperature is 196 degrees C. The substance is insoluble in water but easily soluble in organic solvents. It is almost odorless and practically non-volatile.

Diethyldiphenylurea (symmetrical) is a plasticizer which comes under the name of Mollit I. It is a white crystalline substance, possessing a slight odor, insoluble in water and soluble in alcohols and in aliphatic and aromatic hydrocarbons. Its melting temperature is 72 degrees C, boiling point 325 to 330 degrees C and the flame temperature is 150 degrees C.

Benzyl benzoate is a plasticizer of value for use in making cellulose acetate varnishes. It is found in the market under the name of Erganol. It is a colorless liquid with high refractive powers. It is insoluble in water and has a boiling point of 345 degrees C. The flame temperature is 148 degrees C, the density 1.035 at 15 degrees C.

Paratoluenesulphamide has at times been recommended for use as a plasticizing and softening agent in the manufacture of nitrocellulose and cellulose acetate lacquers and varnishes. Its value for this purpose is however doubtful and with the many plasticizers that can be used, it is perhaps inadvisable to experiment with a substance that does not give the desired results in the proper degree. The substance itself is soluble in hot water and it is separated from its solution when a large proportion of the substance is added to the nitrocellulose. It comes in the form of a white, crystalline powder and has a melting point of 136 degrees C. It is soluble in organic solvents.

Ethylacetanilide

Ethylacetanilide is also an interested plasticizer, which is sold under the name of Mannol. It is claimed to be a better plasticizer than camphor in the gelatinization of nitrocellulose. The fusion temperature of this substance is 52 degrees C and its boiling point 250 degrees C. The flame temperature is 108 degrees C. It has a peculiar

(Continued on page 536)

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CHEMISTRY'S BUSINESS GAUGES

(Continued from Page 496)

In other words, the net gain which he looks for in the continuous contest with his competitors. This he counts as the normal increase to be expected in the year to come.

With this as a starting point, he begins to consider the outside factors which are likely to come into play. And in most industries the factors which determine prosperity or the reverse which lie outside the control of the individual company outnumber those which are subject to control. Since we cannot dominate these outside factors, we must seek to anticipate them and make adjustments to meet them. Which of the multitude of outside factors will be given the most consideration depends upon the particular commodity involved. No two industries are affected in quite the same way by the same group of outside influences. Frequently the effects will vary as between two companies within the same industry.

Almost always it is desirable to know the general trend of business in this country. Are the people as a whole likely to be in position to buy more or less merchandise next year? Here we want to know the crop outlook, the status of industrial employment and its prospects, the situation in the money market, and the outlook for the more important industries. If the prospects are for a year of more than average prosperity, the management will advance its estimates accordingly. If the reverse, a conservative policy is indicated.

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Olive Oils	Sulphate of Ammonia
Crude and Refined Sulphur	

***Powder Manufacturers' Supplies and
Fertilizer Materials of All Kinds***

(Continued from page 532)

saccharine odor and burns with a smoky flame.

Oxanilide is sold as a plasticizer for cellulose ester varnishes and lacquers under the name of Camphol. It is crystalline solid, without any odor and melts at a temperature of 245 degrees C. Its flame temperature is 320 degrees C.

An interesting substance from this standpoint is benzyl acetate. It is known on the market as Plastolin I and is used as a plasticizer. It is a water-white liquid with a pleasant fruity odor. The substance is insoluble in water but it can be mixed in almost any proportions with the ordinary run of organic solvents. It also exerts a very favorable swelling action on the cellulose ester, whether it is cellulose acetate or nitrocellulose. The specific gravity of the product is 1.061, the flame temperature 102 degrees C, the boiling point 215 degrees C, the molecular weight 150, the ester number of the pure product 373 and ester content 99.2 per cent.

Amyl Salicylate

Amyl salicylate is similarly a good plasticizer. It is a colorless liquid without any odor, insoluble in water but miscible in almost any proportions with the common organic solvents. The specific weight of the substance is 1.057, the flame temperature 132 degrees C, the boiling point 280 degrees C, the molecular weight 208, the ester number of the pure substance 269 and the content of ester in the commercial preparation, known as Plastolin II, 98.8 percent.

Paratoluenesulphonanilid has also been recommended as a plasticizer in nitrocellulose varnishes and lacquers. It is a solid, in crystalline form and has a melting point of 103 degrees C. It is very slightly soluble in hot water

(Continued on Page 540)

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(Continued from Page 492)

excellent plasticizer but highly poisonous. It is very questionable whether such a substance should be used at all and if used, great care must be taken to protect the workers and when the expense involved in providing ventilating and equipment and taking other precautions is figured up, it may well be found that there is no real advantage gained in using the substance after all and it may be set aside in favor of another less-poisonous but perhaps not so efficient a plasticizer. It will have been noted that the flame temperature has been given in most every case in the above discussion. This is a very important property of the plasticizer. For if the flame temperature is low, it means that the plasticizer is highly inflammable and hence the fire hazard great. The extra care and attention that the use of such a plasticizer demands may well negate any advantage that is gained in its use over a less effective substance but one which is not so inflammable.

The only way in which to be positively certain that the best results are being obtained with the materials that are used in the manufacture of lacquers is to continually experiment with new combinations and new substances, as they are introduced into the market. In this way only can the manufacturer be sure that he is keeping up with the progress being made in his industry and that he is taking due advantage of the new developments therein to produce a product which is the best that he can manufacture.

In conclusion it should be mentioned that the literature on lacquers and the materials, such as plasticizers and the like that are used in making them is constantly being added to. A careful study of trade papers will often lead to new ideas and new thoughts for experimentation and improvement in lacquer manufacture.

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(Continued from Page 536)

but it is easily soluble in the common organic solvents, as well as in alkalies with which it forms salts. The substance is very well suited for use in the manufacture of cellulose acetate varnishes as in nitrocellulose lacquers for it has a very favorable gelatinizing action on the acetate.

Oxynaphthoic Anilide

Another interesting substance is 2:3-Oxynaphthoic acid anilide. This is a slightly yellowish, needle-crystalline substance which has a melting point of 242 degrees C and is insoluble in water. The behaviour of this substance towards the ordinary organic solvents, which are used in the manufacture of the cellulose lacquers, is very much different from the other plasticizers that are commonly employed in the industry. This substance is difficultly soluble in hydrocarbons, alcohols and esters, and on the other hand quite easily soluble in ketones, such as anion and methylanion. The solution of this plasticizer in such solvents can then be very readily and strongly diluted without the plasticizer being precipitated by the addition of alcohols, esters and hydrocarbons. The substance is by no means as good a plasticizer as the general run of substances used for this purpose and this is due to its slight solvent action on the cellulose esters. The high melting point of the substance is also a disadvantage from this standpoint. It is however possible to obtain good results with the substance when it is used in the correct manner.

Thus if the acetyl cellulose is first brought into solution with this substance in the presence of ketones, then the solution may be used as a starting point in the manufacture of lacquers, for it can be cut to any desirable degree by the addition of the usual solvents. It is in-

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interesting to note that this substance is the same as Naphthol AS, which plays such an important role as an azo developer in the fast dyeing of cottons.

Phenyl paratoluenesulphonate is still another plasticizer. It comes in the form of white, crystals of needle-like form which are very readily soluble in organic solvents. It is a good solvent and swelling agent for celluloseacetate. Its melting point is 93 degrees C, molecular weight 248 and ester number 226.

General Remarks

The above list of plasticizers and softening agents which have both a solvent, gelatinizing and swelling action on both cellulose acetate and nitrocellulose of either is not a complete list. There are many common substances that are used for this purpose, such as castor oil, camphor, and the like. The aforementioned list contains some of the newer plasticizers developed within very recent times. The extent of the list is a very clear indication of the difficulty that surrounds the purchaser of plasticizers in his choice of the proper substance, and this condition is being continually aggravated by the addition of new plasticizers. This development is not being depreciated, for it is necessary that research and experimentation be continued along these lines and that new materials be developed for this purpose for the ideal plasticizer has not been found. But it is well to caution the manufacturer of cellulose ester varnishes and lacquers in exercising great care in selecting his plasticizer. He must know what effect he desires to produce in his product and then choose the plasticizer which will give him the maximum results at least cost.

The selection of the plasticizer does not always depend solely on the efficacy and cost of the product. There are also other conditions which must be taken into consideration in making this selection. The question of hazard in use is important. A substance may be a very

(Continued on Page 438)

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The following tables show the French exports and imports of coal tar and its derivatives in the general classifications carried in the French foreign trade statistics. Exports and imports by countries are given for 1925, the latest available data, and by totals for 1926 and the first six months of 1927.

Countries of destination	Exports 1925		
	Coal Tar Metric tons	Bitumens and asphalts Metric tons	Mineral Oil pitch Metric tons
Great Britain		6,512	
Germany	22,710	2,134	1,036
Netherlands		1,437	
Belgium-Luxemburg	25,832	5,283	1,419
Switzerland	2,747	1,224	11,166
Spain		3,969	
Morocco	2,081		
French colonies and protectorates	2,383	1,980	3
Other foreign countries	888	2,007	1,021
Total	56,641	24,546	14,645
Value in francs	14,160,000	9,818,000	1,128,000

Countries of origin	Imports 1925		
	Coal Tar Metric tons	Bitumens and asphalts Metric tons	Mineral Oil pitch Metric tons
Great Britain	223,060	6,094	37
Germany	4,310		
Belgium-Luxemburg	15,229	4,225	46,342
Switzerland		7,357	
Netherlands			8,097
Italy		6,100	
United States		1,463	
Albania		1,107	1,197
Canada	3,571	3,053	206
Mexico		4,553	
Other foreign countries	1,482	808	101,923
Total	247,652	34,760	4,790,000
Value in francs		14,722,000	11,123,000
			46,044

(Continued on Page 546)

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	1926		First six months 1927	
	Imports	Exports	Imports	Exports
	Metric tons		Metric tons	
Coal tar	322,664	56,792	268,848	34,240
Bitumens and asphalts	35,632	22,714	19,122	11,710
	Metric quintals		Metric quintals	
Mineral oil pitch	142,328	108,984	190,458	6,984

NEW INCORPORATIONS

(Continued from Page 492)

Stone Straw Corp. of Canada, Ltd. Toronto, Ont. \$100,000 manufactures paper, Charles R. McKenzie, Francis G. Bush Albert W. Jackson.

Commercial Papers Ltd., Toronto, Ont. 20,000 shares of no par value, manufactures paper, Henry H. Shaver, Frank Z. Burroughs, John E. Kerr.

Marvel Soap Products Ltd., Toronto, Ont. \$100,000 manufactures soaps, Minard Mastin, Oswald H. McCulloch, Frances C. Copen.

Warren Lubricant Co. Ltd. Toronto, Ont. \$100,000 and 20,000 shares of no par value, manufactures lubricants. Goldwin C. Elgie, Joseph W. Foster, John J. Glass.

Charlot, paints drugs. E. J. Kelly, 320 Broadway, 10,000.

Whitney Payne Laboratory, Inc., New York, chemicals—Universal Charter Co., Delaware, Clayton, 2,000 shs com.

Koppers Erecting Corp., Wilmington, coal, gas, coke—Corporation Trust Co. of America, Wilmington, 1,000 shs com.

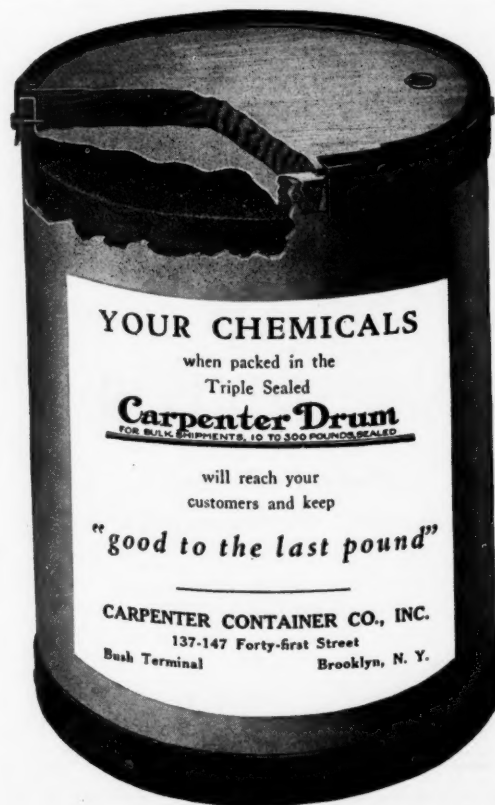
Consolidated Chemical Co., San Francisco, Cal., \$2,000,000; Solomon Feiser, Milton Haas, John Stauffer.

THE INDUSTRY'S BOOKSHELF

(Continued from Page 494)

A LABORATORY MANUAL OF ORGANIC CHEMISTRY. By Hugh C. Muldoon D. Sc., Professor of Chemistry and Dean of Pharmacy School, Duquesne University. Cloth bound, 118 pages. Published by P. Blakiston's Sons & Co., Philadelphia, Pa.

While this work is primarily designed to accompany Mr. Muldoon's textbook of organic chemistry, it gives very detailed working directions for the primary student of organic chemistry, and may be adequately used without it. In this book, the author confines the exercises for those interested in the medical field and in addition to the many elementary experiments, the matter describes full laboratory operations in preparing type compounds. Important cautions are given, together with interesting discussions on esters, carbohydrates and alcohols.





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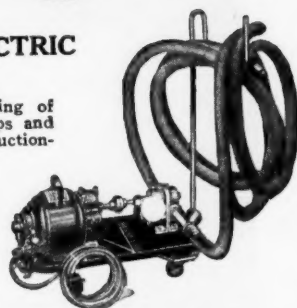
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Local Market Conditions CHICAGO

General business conditions in this territory are characterized as good with chemical sales improving. There has not been any outstanding movement of any one item during the period under report but there has been more than average interest in the stearic acid and red oil position. There have not been any price changes of importance and collections are improving.

BOSTON

Both general and chemical business conditions in the New England territory are considered as quite good as the month of October opens. There has not been any outstanding activity in any one item and the only important price changes have been reductions in wood alcohol and formaldehyde in all directions. Otherwise the market lacked any degree of color, though sales are of a good steady nature. Collections are good.

DETROIT

Referring to your letter of October 4th we wish to advise that conditions in the Detroit territory have greatly improved in the past month. The automotive plants have not shown any material gain, but business in general is quite a little better.

Collections are very good. There are no new concerns of any importance in this territory that we know of, nor are there any removals.

NEWARK

General business conditions are improved, there is a more healthful tone, unemployment is decreasing somewhat and many feel that the next two or three months will show a better volume. The north Jersey district is becoming quite exercised over the situation relative to the new French tariff, some going so far as to say that if made effective as contemplated, it would put all of the mills on full time basis. While production and sales of dry colors are somewhat below last year, it is anticipated that there will be a little improvement in the next month.

The paint business this fall has been unusually good, with one or two large producers who have materially increased their sales over last year. The varnish trade, however, is not in a very healthy condition. All the

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Local Market Conditions

BUFFALO

producers are purchasing from hand to mouth and there does not seem to be any immediate prospect of a substantial increase in business.

General business conditions in Buffalo during the month of September were normal. The chemical business could be characterized as producing in good volume. Heavy chemicals have been drawn on contract in a very satisfactory manner. Considerable interest being shown recently in denatured alcohol, and prices are well maintained although some slight concessions are made by second hands. Movements of naval stores for this time of the year have been normal and some buyers are showing interest in futures of rosin and turpentine at present conservative levels. Glycerin market is weak. Hand to mouth buying on shellac due to the weak condition of the London and Calcutta markets. Vegetable oils moving in a routine way with buyers especially watching the situation on Chinawood oil which shows an easier tendency. Corn oil market in good demand at firm prices. Collections fairly satisfactory.

CLEVELAND

September seems to have been somewhat better than July and August in this territory and we believe that general conditions are showing an improvement. Every one is of the opinion that the last three months of this year will show a decided improvement over the third quarter.

PHILADELPHIA

The chemicals market for the past month has been extremely slow. There is no big demand for anyone particular chemical, neither has there been any radical price changes, although the market has been so slow prices have remained firm in the majority of cases. There is still a good demand for such items as: copper sulfate, castor oil, tri sodium phosphate and a somewhat larger demand for glycerine. However, the trade is hopeful and think the coming month will bring much better business.

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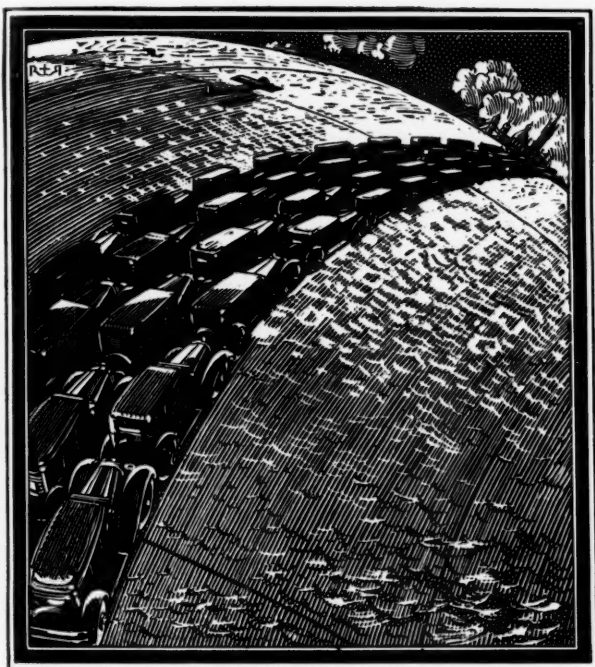
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1867

ONE day in 1867 A. W. Hoffman was experimenting with the flameless combustion of methyl alcohol. Thus was produced a small quantity of what is now manufactured by tons—Formaldehyde. It was more than twenty years later that Trillat introduced the first method for its manufacture on a commercial scale. New uses gradually developed. Now, Formaldehyde enters into the making of rubber, textiles, coal tar colors, paper, pharmaceuticals, sugar and the tanning of leather. Its preservative and antiseptic qualities are widely utilized also.

And, of course, the farmer finds it most effective in the disinfection of grain. P.A.C. Formalde-

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and favorably
known. A high
standard of

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progress which
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